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## THOMAS SYDENHAM, THE ENGLISH HIPPOCRATES

(1624-1689)

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"As long as Almighty God shall give me life, I shall still press forward to my avowed end of doing all the good I can in my calling."—*Thomas Sydenham*.

**M**EDICINE is a practical science, and there are two open roads that lead great, thinking minds to a better understanding of it. Every doctor, in his daily routine work, comes upon these pleasant places, and recognizes the two strong currents of thought that tend to the perfection of a science which has made wonderful strides in advancement in past centuries and the present; currents of thought at once vital and important—the one scientific, the other practical, but both necessary to the solving of problems of real benefit to the great, throbbing humanity about us. We have, then, two schools in medicine—the scientific school, of which William Harvey was the founder, and the practical, or clinical school, represented by Thomas Sydenham. "The great merit of Sydenham," writes one, "was to proclaim the great truth that science was, is and always must be incomplete; and that danger lurks in the natural tendency to act upon it as if it were complete. The practical man has to be guided not only by positive knowledge, but by much that is imperfectly known. He must listen to the hints of nature as well as to her clear utterances. To combine them may be difficult; but the difficulty is solved in minor matters by the faculty called common sense; in greater affairs, by the synthetic power of Genius."

Thomas Sydenham, then, the English Hippocrates, as he is sometimes called, occupies a unique place in the history of medicine. In the words of Horace—"medicus in omne aevum nobilis"—he was a physician famous for all time. Dr. John Brown, the essayist, calls him "the prince of practical physicians;" and it is said that Boerhaave, one of the most eminent teachers of medicine in Europe, never mentioned Sydenham without taking off his hat as a sign of respect and admiration. "Sydenham's is a name," writes another, "not for England only, but for the world."

Many pleasant memories cluster around the humble little Somersetshire village, famous because it was the birthplace of this man of genius, who lived, like Harvey, at a time when his country's heart was in a state of wild unrest, and the staid old English character was being moulded into shape by the strong influences of internal strife and disorder. Yet, withal, he emerged into the light of eminence with a character as noble as it was beautiful.

In an unknown little corner of England, at a place in Somerset called Wynford Eagle, Thomas Sydenham, the great physician, first saw the light of day. Old chronicles give the date of his baptism September 10th, 1624. Sydenham's biographers all speak of the scarcity of material at their disposal concerning his life. The history of the seventeenth century is much clouded, and the life of Sydenham, like that of other contemporaries, could stand a genuine outburst of sunshine to bring out clearly the many little details that give colour to the picture which the historian, not through any fault of his own, paints so poorly and imperfectly. Wynford Eagle is a hamlet and chapelry about eight miles from Dorchester. In the famous old Domesday Book, it is called "Wynfort." The house in which Sydenham was born is an old, gray, ivy-grown structure and stands to-day a well-preserved building. "It lies," says one, "in a hollow, sheltered by the downs and upland pastures, and is a pleasing specimen of a seventeenth century manor-house. The front is composed as usual of three parts, each surmounted by a gable. The whole building is very solidly constructed of stone and flint." Even to this day one of the fields near the old home goes by the name of "Sydenham's."

Thomas Sydenham was the fifth son of William Sydenham—out of a family of seven sons and three daughters. His mother, a woman of pious mind, was a Mary Jeffery, daughter of Sir John Jeffery, of Catherston. Tracing the genealogy of the Sydenhams backward into the Middle Ages, we find that the family contributed some distinguished names to current history. One, Richard

Sydenham, was a judge in the reign of Richard II; another was a bishop in the reign of Henry V. A daughter of a Sydenham married Sir Francis Drake in Queen Elizabeth's reign. Then there were numerous members of parliament, sheriffs and knights. Very little is known of the early life of Sydenham except that he was under the care and guidance of honest and conscientious parents. It is thought that his early education began at the grammar school in his native village, or at Dorchester. Others, again, state as probable that, like many families of his day, he was instructed by the regular tutor living in the same house, or that the local clergyman, as was customary, instructed him in Latin.

At eighteen, Sydenham was sent to Oxford—the college selected for him being Magdalen Hall. Here he matriculated on May 20th, 1642. A turn in political events, however, soon put a stop to his academic career, which could not have exceeded a few months. The old, old struggle between the king and parliament was fiercely raging. They were stormy times. There was much fighting, much bloodshed. Think of the influences they would bring to bear upon the life of Sydenham, "who," as one writer puts it, "brought into matters of thought and science the courage of a soldier and the independence of a rebel." On August 22nd, the king raised his flag at Nottingham. The cry of civil war was in the air, and peace, poor, white-souled thing, spread its wide wings and fled the country. Every Englishman with a heart in him had to decide on which side he would play his part. The young Sydenham espoused the cause of parliament, notwithstanding that Oxford and its university were followers of the king. Anthony Wood, a contemporary writer, says: "Sydenham left Oxford without taking arms for the king as the other scholars did." Thus the lad of eighteen threw his books aside for a sword and the brilliant uniform of a soldier in one of the most memorable conflicts on the pages of history. In looking over old records we often come across the name of the Sydenhams. Here it was a brilliant victory, there a display of courage and heroism under most trying circumstances. The "fighting Sydenhams," they were called—this father and his four brave, daring sons. Two of them died in battle—soldiers to the last. How a lonely mother-heart must have pined for the husband and the precious, valiant children!

We know very little of Mrs. Sydenham, but she must have been an heroic woman, possessing all the endearing qualities that ennoble lofty womanhood. For her, this war must have been a tragedy—awful and soul-crushing. She, herself, innocent victim, later was

killed by the hand of a Royalist—a certain Major Williams. An old chronicler roughly tells how Thomas Sydenham—the loving son—avenged the wrong done his mother. It happened that he and this very Williams chanced to meet later on in battle. “For a soldier in the field to find himself confronted in arms by the slayer of his mother would be a crisis strange and startling enough to turn even a coward into a hero,” writes Payne. “It must have roused the Sydenham blood, which was not that of cowards, to an unexampled heat. What followed must be told in the words of the old narrative, since we can add nothing to them, nor have we the right to take anything away:”

“So soon as Colonel Sydenham saw Williams, he spake to his men that were next to him to stick close to him; for said he: ‘I will now avenge my mother’s innocent blood;’ and so he made his way to Major Williams, and slew him in the place, who fell dead under his horse’s feet.” Could anything be more highly tragic than this sad event in the family history of the Sydenhams? In passing, we might note on account of its bearing on medical history, that Richard Wiseman, the most eminent surgeon of the seventeenth century—often called the Father of Surgery—acted as a surgeon on the king’s side during the Civil War.

In 1646, Sydenham returned to Oxford University. He writes: “It is now the thirtieth year since the time when, being on my way to London, in order to go from there a second time to Oxford (from which the misfortunes of the first war had kept me away for some years), I had the good fortune to fall in with the most learned and honourable Dr. Thomas Coxe, who was at that time attending my brother during illness; and then, as he has been up to the present time, practising medicine with great distinction. He, with his well-known kindness and courtesy, asked me what profession I was preparing to enter now that I was resuming my interrupted studies and was come to man’s estate. I had at that time no fixed plans, and was not even dreaming of the profession of medicine; but moved by the recommendation and influence of so great a man, and in some way, I suppose, by my own destiny, I applied myself seriously to that pursuit. . . . After spending a few years in the university I returned to London and entered on the practice of medicine.”

The war also had its depressing effects upon Oxford University, and sadly crippled it. The halls and rooms of the colleges had been turned into military garrisons, and the songs of the merry students were drowned by the shouts of busy soldiers, the former



being very much in the minority. "Both the university and the colleges were impoverished by their quasi-voluntary gifts to the king; some of their buildings were in ruins, and there was, in Anthony Wood's words, 'scarce the face of a university left.'" This, then, was the condition of the university in the time of Sydenham but, despite these circumstances, many bright minds lent a refreshing glow to the depressing picture. The intellectual life about Oxford, however, was a redeeming feature. Wallis, the great English mathematician, and Seth Ward, the astronomer, came over from Cambridge to add glory to it. Dr. Jonathan Goddard, Cromwell's physician, who constructed the first telescope in England, and Dr. William Petty, the economist and lecturer in chemistry, also frequented this noted seat of learning. Then, besides, there were Christopher Wren, that "miracle of a youth," the noted Robert Boyle, Thomas Willis, the anatomist, and Robert Hooke, the chemist. This group of scientific men often met of an evening at the home of Dr. William Petty, where scientific discussions generally took place upon regular meeting nights. How pleasant it would be for us to picture Sydenham at one of these meetings, surrounded by this noted circle of immortals. However, we have no record of him attending them; but we do know that he and Robert Boyle—one of the most brilliant members of the group—were fast friends.

When Sydenham attended Oxford, the Earl of Pembroke was Chancellor of the university. On April 14th, 1648, Sydenham was created Bachelor of Medicine. Some claim that he also received an M.A. degree, but Wood, the historian, denies this. "The modern reader," writes the biographer, Payne, "may wonder a little that medical degrees, involving professional privileges, were conferred as readily as honorary titles in arts or law are given at the present day. Sydenham could not at this time have made any serious study of medicine, having been barely a year resident in the university and in a time of great confusion. He had thus the rare good fortune to obtain a degree at the beginning, instead of at the end of his student's course. So much he owed to patronage. But if we consider the incalculable gain to the science of medicine involved in making Sydenham a doctor, we must admit that seldom has the blind goddess of patronage dispensed her favours with a happier hand."

In 1648, the young physician was appointed to a Fellowship of All Souls' College, and, in March of the next year, the Senior Bursarship of the college was given him.

Comparatively nothing is known of Sydenham's life at the university. We are told, however, that "when Sydenham had returned to the university after three years' absence, he had forgotten his Latin, but recovered it by the obstinate reading of Cicero, translating him into English and then re-translating into Latin, correcting from the original." Cicero, it is said, was always a great favourite of his. Sir Hans Sloane tells us that Sydenham always kept a bust of him in his study. In those days Oxford offered few facilities to the student in medicine. Sir Thomas Clayton—Regius Professor of Medicine—gave bi-weekly lectures on the doctrines of Hippocrates and Galen. Then, also, there were classes in anatomy—but the study of anatomy was in its infancy almost, and little could be effected in this line. Not until Willis and Lower set to work did it gain any point of eminence. Sir Thomas Clayton, who held the chair in Sydenham's time, is said to have had a weakness which entirely disqualified him for his office, namely, that he could not bear the sight of blood. He finally resigned, and the chair fell to the famous Dr. Wm. Petty, who studied at Leyden and Paris. Chemistry and botany were also important branches in Sydenham's time.

A second military service again cut short Sydenham's career, but we will pass over it in silence for it does not bring out anything of importance that might add to or detract from the personality of this great English physician.

In 1665, Sydenham resigned his Fellowship in All Souls' College, and in the same year took unto himself as wife a certain Mary Gee—a Dorsetshire lady, it is supposed. The year following he settled down to practice his profession at Westminster. His rooms were in the immediate neighbourhood of Whitehall—the mecca of politicians, statesmen and parliamentarians. But a few blocks away lived the immortal Milton, the sweet, blind singer of "Paradise Lost." Is it not possible that the young physician might have been called in many a time to administer to the growing infirmities of the immortal bard? There is nothing left to tell us that he ever did so, but would it not be pleasant to draw so charming a picture about the life of so great a poet, and so great a physician? The neighbourhood in which Sydenham lived, had, as we will see later, a great bearing upon his own writings. He wrote mostly on fevers and agues, and the whole Westminster region—a swampy and malarious country—was a breeding spot for such diseases. Cromwell himself is said to have died of a malignant ague, probably contracted at Whitehall.

It is now an almost undisputed fact that Sydenham studied at Montpellier as well as at Oxford. French writers assert positively that he was the pupil of the celebrated physician, Charles Barbeyrac. This Barbeyrac had a wonderful reputation throughout the whole of France and other countries as a consultant. He was not connected with the university, but formed private classes amongst his students. It is said "some ten or twelve of them used to accompany him in his visits to his patients. On the way he would give them a sort of clinical lecture on the cases and their treatment, answering the numerous questions of his pupils with excellent judgement and fluency. His ideas about many diseases were entirely novel, but lucid and well-founded. His practice was admirable, being at once simple and easy. He had discarded a large number of the useless remedies employed before his time, which served only to embarrass the sick man; making use of a few only, but those well-chosen and efficacious. These he employed so well that no physician ever had more successful and striking results from his treatment."

Barbeyrac's bedside clinics must surely have had a great influence upon Sydenham's wonderful mind. Locke, Sydenham's great friend, who also studied at Montpellier, used to say that he never knew two men more alike in opinions and character than these two physicians. M. Bouteille, a Frenchman (1776), said that Sydenham had learned his cooling remedies in fevers (*choses rafraichissantes*) of Barbeyrac.

The date of Sydenham's return from France is not known, but we have reasons to believe that he was back in London in 1661. His observations (published later) on the weather and diseases in London begin with this year. He obtained his license from the Royal College of Physicians in 1663. The coveted Fellowship never fell upon his shoulders. "From all we know of Sydenham," writes Payne, "we should conclude that he cared little about academical distinctions, and doubtless bore the privation with equanimity. And, in later years, when the same difficulties might not have stood in the way, he had ceased to care what letters he could write after his name. The more surprising fact is that he did, after all, think it worth while to take a doctor's degree so late in life; but of his motives in so doing we have no knowledge."

Sydenham, however, like others, had friends and enemies as well in the college. A certain Dr. Andrew Brown, an intimate of his, tells us that Sydenham had once complained to him that "he had only gained the sad and unjust recompense of calumny and ignominy, and that from the emulation of some of his collegiate

brethren and others, whose indignation at length did culminate to that height that they endeavoured to banish him, as guilty of medicinal heresies, out of that illustrious society."

Some years after his return from Montpellier, Sydenham was engaged in studying and investigating the epidemics of London. Just about this time that terrible calamity known in history as the Great Plague swept over London. It was another Black Death, strewn the land with suffering, sick bodies and killing off young and aged—at one time at the rate of seven thousand a week. The plague swept away a whole cityful of people—the mortality tables showing sixty-eight thousand, five hundred and ninety-six deaths; statisticians claim that fully one-fifth of the inhabitants succumbed to the deadly disease. It quickly spread towards Westminster. The king and queen went to Oxford. The dreaded peril lay right outside of Sydenham's own door, and the cries of the suffering stole into his study. Consequently, the doctor and his family moved to Dorset, a little spot a few miles from London. Many writers blame him for leaving London at this critical period. They assert that, as a physician, he should have considered it his duty to fight the disease in the dark valleys. Was it not a distinct loss to medicine, they further ask? Might he not have added a striking and interesting chapter to the history of medicine? But Sydenham had a wife and young children to pull at his heart-strings and after all, the sick did not suffer for want of medical aid for there were physicians in plenty around. He wrote, however, of the plague, but his treatise did not make much of a stir.

Sydenham was not idle during those plague-stricken days. He was busy with his pen during those months of absence from the city, and produced his first book on the "Treatment of Fevers"—a work of momentous importance to the course of medicine. The treatment of a few acute diseases such as rheumatism, pneumonia, and erysipelas, was also included. The title of the little book was: "Thomas Sydenham Methodus Curandi Febres, propriis observationibus Superstructa." (Thomas Sydenham's method of treating fevers, based upon his own observations). Fevers had a much greater relative importance in his time than at the present day, since he estimated that they made up two-thirds of medicine. In our own day the same class of maladies, called in official returns zymotic diseases, are credited with only one-tenth of the total mortality from all causes. The book was written in Latin, as were all Sydenham's books, contained one hundred and fifty-six pages, and was dedicated to the Hon. Robert Boyle, philosopher and man

of science. It was divided into four sections: (1) On Continued Fevers; (2) On Certain Symptoms which Accompany Continued Fevers; (3) Intermittent Fevers; (4) Smallpox. Very few books were written in English in those days. "Surgeons and quacks might write in English, but for an orthodox physician to do so would have been an act of bad taste almost amounting to a crime." Sydenham wrote a very beautiful preface to his book. It shows us in an instant the inner, sensitive, lofty soul of the man—his "religio medici"—the deep, sincere, religious undercurrent swaying all his feelings, and the noble, lofty ideals he set for himself in his life's own footpath. "Whoever applies himself to medicine," it reads, "ought seriously to weigh the following considerations: First, that he will one day have to render an account to the Supreme Judge of the lives of sick persons committed to his care. Next, whatever skill or knowledge he may, by Divine favour, become possessed of, should be devoted above all things to the glory of God and the welfare of the human race. Moreover, let him remember that it is not any base or despicable creature of which he has undertaken the cure. For the only begotten Son of God, by becoming man, recognized the value of the human race and ennobled by His own dignity the nature He assumed. Finally, the physician should bear in mind that he himself is not exempt from the common lot, but subject to the same laws of mortality and disease as others; and he will care for the sick with more diligence and tenderness if he remembers that he himself is their fellow sufferer."

Sydenham's book, it may be imagined, made quite a stir in those days of few books and fewer discoveries, for it contained much of vital importance to sick, suffering humanity. It was William Harvey's story, served again with extra trimmings by the critics. Some rose up and called him "blessed;" others—a certain Henry Stubbe principally—condemned him with scathing bitterness. This Stubbe, a physician at Warwick, had been at Oxford with Sydenham and enjoyed somewhat of a reputation as a Greek scholar. He assailed Sydenham's smallpox theory especially. Sydenham thought that smallpox was due "to a spontaneous effort of the blood to bring itself into a new state, and—putting off its native state by a process like moulding—to put on, as it were a new shape." Stubbe criticizes him thus in his lines beginning: "Whether Dr. Sydenham intends to ascribe sense, appetite and judgement unto the blood, I cannot well tell, but either he canteth in metaphors or explaineth himself in his general hypothesis about



Feavers as if his meaning were such. But it seems strange and irrational to attribute such an understanding to the blood, and to transmute a natural agent into one that is spontaneous, and, which is more, having represented it as such, to make it so capricious as not to know when it is well; but to run phantastically upon such dangerous changes as occur in putrid feavers and the smallpox, for even this last 'ariseth from a desire the blood hath to change its state.'"

To be sure the theories of a Sydenham do not look well now beside our own very modern ideas. He made the same mistakes of other contemporaries, but he left a strong foundation for a more perfect building than was to be evolved out of his own mental architecture. However, his book was well received. In the same year it was reprinted in Amsterdam, and Sydenham was by far better appreciated in foreign countries than in his own England. It was the eternal story all over again—the prophet forced to seek glory and appreciation under alien skies, far away from the familiar faces whose smile would have meant so much to him. Schacht, Professor of Leyden, recommended the work to his students. Ettmuller, of Leipzig, Spon, of Lyons, and Dolaeus, an encyclopædic writer on medicine, often spoke a good and cheering word of "the fever-curing doctor." In 1668, a second edition appeared, with an added chapter on the plague. On the first pages of the book appeared a long Latin poem, written by John Locke, one of Sydenham's intimates—a word of praise for honest, conscientious research. We quote a few lines of the lengthy poem below:

"With Fever's heat, throughout the world that raged,  
Unequal war has mourning Medicine waged;  
A thousand arts, a thousand cures she tries;  
Still Fever burns, and all her skill defies,  
Till Sydenham's wisdom plays a double part,  
Quells the disease and helps the failing Art.  
No dreams are his of Fever's mystic laws,  
He blames no fancied Humour as its cause;  
Shunning the wordy combats of the Schools,  
Where an intenser heat than Fever rules.

\* \* \* \* \*  
Thy arms, Victorious Medicine! more intend,  
Triumphant, thou the unconquered Plague shalt end,  
Live, Book! while Fever's vanquished flames expire,  
Thee and the world await one common fire."

In 1676 appeared a third edition and in 1685, a fourth. Many revisions and other changes crept into the volumes. Numerous



observations on London epidemics from 1661-1675 were added. They contained lines on measles, quinsy, scarlatina, etc. "With all deductions," writes one, "this work will always remain one of the greatest of medical classics. The descriptions of many diseases and symptoms are so admirable and complete that they have never been surpassed nor are likely to be. Many flashes of insight and pregnant hints might be collected which contemporaries did not understand, and to which later knowledge is only able to do justice. Above all, the resolute endeavour to study natural facts by pure observation, putting aside the theories, facts and fictions collected out of books, which he says 'have as much to do with treating sick men as the painting of pictures has to do with the sailing of ships'—this endeavour, successful or not, will always be the best example of method to all students of medicine."

Up to this time, Sydenham's writings all referred to acute diseases. Requests now poured in from all corners, asking him to write something on chronic diseases. In 1680, he published his "*Epistolæ Responsoræ duæ*"—answers to some letters which he had received pertaining to the treatment of certain diseases. The first of the letters contains these charming lines. What a noble mind Sydenham must have had! "I have always thought," he writes, "and not without reason, that to have published for the benefit of afflicted mortals any certain method of subduing even the slightest disease was a matter of greater felicity than the untold riches of a Croesus. I have called it a matter of greater felicity; I now call it a matter of greater goodness and of greater wisdom. For what more abundant instance of wisdom and goodness can anyone display than (seeing his own share of our common nature) to continually refer such things as he has accomplished, not to his own glory, but to the advantage of the world at large, of which he is so small and contemptible a particle? I agree with that illustrious master of language and thought, my favourite Cicero, the leading spirit of his age, if not of the world at large, that 'as laws place the welfare of all men above the welfare of the individual, so a good and wise man, obedient to the laws, and mindful of his duty as a citizen, will think more of being useful to men in general than to any one or to himself.'"

In 1862, appeared another letter, "*Dissertatio Epistolaris*," addressed to Dr. Cole, of Worcester, an authority on apoplexy in his day. The letter deals in part with the treatment of smallpox and hysteria. Sydenham gives us an almost perfect picture of this common disease. "*Tractatus de Podagra et Hydrope*" appeared in

1683—a treatise on gout and dropsy. On the title page is a quotation from Bacon—Sydenham's favorite author: "Non fingendum, aut excogitandum, sed inveniendum, quid Natura faciat aut ferat" (We have not to imagine or to think out, but to find out what nature does or produces.) In this book, also, appears the following passage, so characteristic of Sydenham, which gives us a view along other lines, into the noble character of the man: "It is my nature," he says, "to think where others read; to ask less whether the world agrees with me than whether I agree with the truth, and to hold cheap the rumour and applause of the multitude. And what is it indeed? Is it any great thing for a man to do his duty as a good citizen, to serve the public to his own private loss, and to make no glory for doing so? If I take a right measure of the matter, I am now so old that to study my own reputation will soon be as if I studied the reputation of one who is not. For what can it profit me after my death if the eight letters which compose the name Sydenham should pass from mouth to mouth among men who can no more form an idea of what I was, than I of what they will be; of men who will know none of those (then dead and gone) of the generation before them; who will use other language and have other manners; such is the inconstancy and vicissitude of all things human."

The treatise on gout was by far the more important book of the two, and is looked upon as Sydenham's masterpiece. He himself suffered from the disease for thirty-four years. "The Gouty Physician," he was often called. No wonder, then, that he gave us so true a picture of the malady. "It may," he writes, "be some consolation to those sufferers from this disease, who, like myself and others, are only moderately endowed with fortune and intellectual gifts, that great kings, princes, generals, admirals, philosophers, and many more of like eminence have suffered from the same complaint and ultimately died of it. In a word, gout, unlike any other disease, kills more rich men than poor, more wise than simple. Indeed, nature, the mother and ruler of all, shows in this that she is impartial and no respecter of persons; those who are deficient in one respect being more richly endowed in another; her munificent provision for some men being tempered by an equitable proportion of evil. Hence, that law universally recognized that no man is 'ex omni parte beatum' nor yet, on the other hand, in all respects miserable. And this mixture of good and evil, especially appropriate to our frail mortality, is perhaps the best thing for our happiness."

In another part of the book Sydenham oddly says that the best beverage for gouty persons is "one which neither rises to the generosity of wine nor sinks to the debility of water, such as London small beer; but water, pure and uncooked, is dangerous."

Some writers have expressed surprise at not finding mention of Harvey and his great discovery anywhere in Sydenham's writings. Sydenham, as is well-known, paid little attention to anatomy and physiology. They were perfect strangers to him almost—unimportant as far as his own thinking went, and it is said that he often spoke of the researches made in these branches with contempt. But he did not, however, totally disregard anatomy. He held that a physician ought to know the structure of the human body. One writer has called him "one-sided" on this account.

In 1684, Hans Sloane, afterwards the founder of the British Museum, having completed his studies abroad, returned to London with a letter of introduction to Sydenham. The letter said in part that he was "a ripe scholar, a good botanist, a skillful anatomist." Sydenham read the letter quickly. Then he sent a hard look into the young man's face. "This is all very fine," he blurted out, "but it won't do! Anatomy—botany! Nonsense! Sir, I know an old woman in Covent Garden who understands botany better, and as for anatomy, my butcher can dissect a joint fully as well. No, young man, all this is stuff; you must go to the bedside; it is there alone you can learn disease."

"*Schedula Monitoria de Novæ Febris Ingressu*" (a sketch by way of warning of the approach of a new fever) was Sydenham's last work. It was published in September, 1686. The volume contained a chapter on calculus and a perfect description of St. Vitus' dance, chorea—the dancing mania of the Middle Ages. "Sydenham's chorea" it is called to-day in our modern text-books on medicine. In the closing lines of the book he states that he has now delivered nearly all that he knows respecting the cure of diseases.

In Sydenham's day, there was a certain Gideon Harvey, physician in ordinary to Charles II, a man of sound education, whose special delight it was to write scurrilous attacks on other physicians. Sydenham also fell a victim to his ridicule. He refers to him as "a trooper turned physician," and again as "a Western Bumkin that pretends to Limbo children in the smallpox by a new method." Very few escaped Harvey's caustic remarks, the anatomist and physiologist being both subjects of his burning, but witty criticism. Listen to him in the following lines—rather

an amusing picture of the doctor at divine service! "The church shall no sooner be opened but 'ecce!' Mr. Doctor, sitting in the most visible seat, Grave, Deaf, Dumb, and immoveable as if an Apoplexy of Devotion had seized him, out of which his Apothecary is to raise him by knocking at half sermon at his pew door to fetch him away post haste to a dying patient; by which means he draws the eyes of the whole congregation after him; but instead of going to the pretended House of Visitation they both drop into a cabaret, there to pass the fatigue of a forenoon Sunday. This knack of confederacy is to be repeated several days, until it hath made an impression on the people, that he is a man of importance and of great Physick business."

Very few pen-pictures of Sydenham's personality are at hand. The following, by one of his biographers, may however, give the reader an idea of his warmth of character; "Thomas Sydenham, as we judge from his portraits, was of a large and robust frame, his complexion reddish, his eyes gray, his hair first brown, afterwards gray, worn long, in its natural state, with a wig. For his actual features we refer to the portrait. We suppose him to have been in his manner manly and simple, but, perhaps, somewhat rustic rather than polished and conciliatory—more the manner of a Dorsetshire squire and captain of horse than that of a courtly physician. He was essentially a man of action when most physicians were men of books. We can imagine him taking command of the sick room and having his orders obeyed, with a rough word or two if things went wrong. He undoubtedly gained the most complete confidence of his patients; of this there is abundant evidence. But it would have been by his plain honesty and benevolence and the ascendancy of a strong nature rather than by pleasing and flattering. In his treatment he was eminently straightforward."

Sydenham all his life remained a reader of books—Latin principally. He called Cicero "the author I most admire as the great teacher both in thought and language, the first genius of his own and, perhaps, of all ages." Then there were Homer, Lucian, Virgil, Horace, Juvenal, Seneca and others—all friends of his in his silent hours.

It cannot be denied that Hippocrates, Bacon and Cicero, had a formative influence upon Sydenham's writings. He adopted the medical system of Hippocrates, and through all his writings one comes across quotations from the old master—"the divine old man." But Sydenham went farther. He made new inroads into the undiscovered fields of thought and observation. Others lay on the

hilltop, dreaming, filled with a sweet contentment; but he went down into the valleys to hear the strong, beautiful messages springing up everywhere like flowers in the springtime, and we know he learned many a secret from the willing lips of nature. In short, he was "the first who explicitly laid down the principle that diseases should be studied by the natural history method, like natural objects, without trying to explain them." Sydenham's idea was: "Investigate first, explain afterwards if you like; but remember that nature is always something very much greater than all your explanations."

Francis Bacon, "that great genius of rational nature," also lived next door to Sydenham's heart. Real man of science that he was, Sydenham always mentioned his name with great love and admiration. And, then, of course, there was Cicero, whom he loved deeply and read always. In this sketch it will also be interesting to touch, in passing, upon two of Sydenham's great friends—the real men of action who came in contact with him, whose heart-throbbings spoke to him more strongly than words could ever do. His most interesting friends without a doubt were Hon. Robert Boyle, great man of science, and John Locke, physician and philosopher and Fellow of the Royal Society. Boyle and Sydenham were about the same age; both were Baconian to their heart's core and both were wedded to original research. Locke was somewhat younger in years than Sydenham, but such a friendship as that which existed between these two great physicians must have certainly been a congenial one. They often extended to each other a helping hand in the preparation of manuscripts for publication.

Sydenham's last days were uneventful. He must have been the father of a family, for in his will we see mention of his two sons, Henry and James. We must conclude, also, that his home life was everything that could be desired, for he always speaks of his family in words of strong endearment. His wife, it is thought, preceded him, as there is no mention of her in his will. Provision is made, however, for her mother, Mrs. Gee. We have reason, also, to believe that Sydenham's professional practice was a large one and that he numbered many distinguished persons amongst his patients. Several attacks of gout and calculus helped to make his last days miserable. For years he dieted carefully, drove a great deal in the open air, and retired early. It is said of him also that often on an evening he could be seen at his open window in Pall Mall with a pipe in his hand, enjoying the solace of his usual smoke. Like Milton, his contemporary, he evidently loved the weed.

The last writing Sydenham did was on September 29th, 1686. "Although my advanced age and constitution," he wrote, then, "broken by continual maladies, might have seemed rightly to demand release from the labour of thought and intense meditation, yet I cannot refrain from endeavouring to relieve the suffering of others even at the expense of my own health." These were the opening lines in his "Schedula Monitoria"—his last work given to an anxious critical world. Then the ink in his ink-pot dried up, the pen rusted and the great physician laid it down forever. Death came to him quietly three years later, in his sixty-fifth year, December 29th, 1689, at his house in Pall Mall. Nearly a century and a quarter later, the College of Physicians, to perpetuate the memory of the gentle physician, placed above his grave a tablet bearing the following inscription:

"Prope Hunc Locum Sepultum Est  
Thomas Sydenham  
Medicus In Omne Aevus Nobilis  
Natus Erat A.D. 1624,  
Vixit Annos 65.  
Deletis Veteris Sepulchri Vestigiis  
Ne Rei Memoria Interiret  
Hoc Marmor Poni Jussit Collegium  
Regale Medicorum Londinense  
A.D. 1810 Optime Merito."

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THE extensions which have been added to the Winnipeg General Hospital were formally opened September 29th. The hospital now contains 478 beds for patients. The new building, which is composed of 2 wings and a central portion, contains 135 beds in the public wards, 77 in the semi-private wards, and 38 private rooms. None of the wards in the new building contain more than 6 beds. The hospital was first organized in 1872, and it was incorporated in 1875.



## SOME PSYCHIATRIC PROBLEMS FROM THE GENERAL PRACTITIONER'S STANDPOINT

BY C. S. McVICAR, M.B.

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IT is not my purpose in this communication to introduce a new idea. On the contrary, I wish to complain that there is so little that can be called new in psychiatry. I have hoped that a restatement of certain commonplaces may gain force from the time and place of utterance, and direct attention to some problems in psychiatry, that arise with frequency in general practice, and perhaps encourage interest in a neglected field of medicine.

In the first place, and to put the subject as concretely before you as I possibly can, I have to ask you to listen to a few brief abstracts from case histories. I do not think I am in error in supposing that these, at least, will be considered commonplace, and that each one of you will recognize in them the counterparts of many cases occurring day by day in the ordinary routine of general practice. Two reasons prompt me to cite the case histories rather than the labels assigned to them; one is that they are not all labeled, and the other is that psychiatric labels convey so little information to most of us.

CASE 1. Mrs. A., age forty-four, living in a comfortable home, happily married, has two children. She complains of hot and cold flushes, lethargy, irritability, loss of appetite, lack of ambition, tires easily. She thinks it is the "change of life."

CASE 2. Mr. B., age thirty-eight, accountant, married, has one child. Complains of weakness, always tired, cannot concentrate on his work, has no ambition, has peculiar sensations up his spine, in the perineum, in his testicles, around his heart. During the previous six months and in the absence of his wife and child on a holiday trip to Scotland, he had gone to the office at nine

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o'clock in the morning and had taken the car home at midnight. He says he feels as though his heart was going to stop, and has frequent cold perspirations.

CASE 3. Mr. C., age forty-two, builder, married, has one child, aged twelve. Two years ago had a two-year-old son die of congenital heart disease. One day he bumped his left knee in boarding a street car, inducing a moderate synovial effusion. During his enforced idleness, he complained that he could not sleep; he appeared confused and talked irrationally to his wife, saying that he did not want anything to eat, that there was no use in eating anyway, that there was no use in telephoning about his motor car, which was in a repair shop, as he would never use it. He told his business partner that they might as well quit building, as they would never sell the houses. He could not remember fifteen minutes after taking his food what he had eaten. A little light was thrown on this case later, as the patient volunteered that his present misfortune had recalled the tragedy of his life, viz., the death of his two-year-old son, in whose future all his plans had centred. To have lost this child made all else in life seem of no importance.

CASE 4. Miss D., age forty-two, school teacher. I was called to see her at 2 a.m. because she had been vomiting violently. When seen, she refused to speak or open her eyes. Physical examination revealed nothing. Her friends said that she had had two recent causes to worry, one was that she had recently been given charge of a very difficult class, and the other was the unexpected marriage of a sister with whom she had lived for years; this marriage had made her feel alone in the world.

CASE 5. Mr. E., age forty-four, a fine looking German, had for fifteen years worked late and early in building up a successful butchering business. One day he felt that something snapped in his head, and for three years he has sought relief from terrible headaches, from recurrent fears of impending death, from thoughts of suicide and a persistent incapacity to work. At times his mental distress is intense and he pleads with tears of anguish to be relieved.

CASE 6. Mr. F., age thirty-seven, applied for examination for life policy of a large size. His speech showed a marked tremor. His memory was defective. When questioned as to his previous health, he stripped off his coat to demonstrate his powerful muscles. Further study proved him a well advanced general parietic.

CASE 7. Miss G., age thirty, during convalescence from lobar pneumonia began to refuse food. She shut her teeth, closed her

eyes, refused to speak and resisted all efforts of her nurse to care for her. There was loss of sphincter control and general muscular hypertonicity. She was fed with a tube for a week and then opened her eyes and began to talk a little. When quite well she remembered that in her delirium, she fancied that she was being forced over the brink of Niagara Falls. She thought that when we attempted to open her mouth, that it was to allow the water to get in, so that she would drown.

CASE 8. Miss H., age nineteen, youngest of a family of three girls, is a university student. She failed in her first year examination, but managed to secure first year standing at the end of two years. She is now preparing for her second year examination. She came to the office in my absence, and when told that I would probably be back in two hours, she said she would wait. When I asked her what she was complaining of, she said she thought she must be insane. She said she could not concentrate on her work. She had been reproved by an instructor for letting her fancy drift too far in an essay on Marlow. She said Marlow wrote vile stuff anyhow. She complained that no one seemed to understand her. Her professors were silly old things. Her conversation was disconnected and her deportment replete with mannerisms. A conference with her mother revealed that she had always been different to other girls. She was seclusive, subject to varying whims and sudden impulses. She showed frequent outbursts of temper. Her mother does not know what to do with her.

CASE 9. Mrs. I., age thirty-eight, married. The husband of this patient seeks advice because during the past two years he has noticed that his wife has lost interest in her personal appearance. She appeared dreamy and would not talk. She became much concerned about her fancied ill treatment of her brothers and sisters, and arose early one morning to go and apologize for her conduct. The husband frequently comes home in the evening to find the breakfast table as he had left it, his wife having eaten nothing during the day; and usually she had not finished dressing. She complained of buzzing in her ears and stated that her neighbours were using wireless on her. On two occasions she telephoned the police saying there were burglars in the house. She refused to have a servant. Her letters were disconnected, full of unfinished sentences and repetitions. She was well nourished and looked more like a girl of twenty than a woman of thirty-eight.

Now during the past twelve months I have seen in private practice but one case of typhoid fever, and only one case of pneu-

monia. Yet all the cases abstracted above were presented during the month of April last, and are moreover only selections. What are we to do with such cases? Let us see what disposition is ordinarily made of them. A certain number who are dangerous to themselves or to others, or who cannot take care of themselves are cared for in institutions, that is, they are clothed and fed in asylums. Others are given tonic treatment, that is, measures are employed to improve their metabolism, it being presumed that improvement in their physical condition will bring about improvement in their mental symptoms. This line of treatment is carefully carried out in a few asylum cases and is aimed at by most physicians. A third group of cases are subjected to maltreatment by non-licensed quacks who promise to "adjust the cause" by magic manipulations. There are still a few who pass through the hands of licensed quacks who remove the ovaries of females, the varicoceles of men, and the hard-earned savings of both.

As general practitioners where are we to look for assistance in the diagnosis and treatment of mental cases? There are two classes of text-books available, one class written by men engaged exclusively in asylum work and the other by men who are not. Perhaps it is for this reason that so much confusion exists as to terminology and classification. It is this variety that is so puzzling, and the lack of a standardized classification is a most significant fact. It points to the necessity for more systematized research.

The symptomatic classification of the Kraepelin school is interesting and is an admirable result of close clinical observation, but it lacks the precision in the relationship of cause and effect that is essential to prophylaxis and a guide to prognosis. Hippocrates left us an excellent clinical picture of tuberculosis, but Koch found the bacillus and directed investigation along practical utilitarian lines. Now that general paresis has become established as a separate disease on a basis of facts derived from its anatomicopathological data, from its organic symptoms, and its etiology, the psychological symptoms have lost much of their importance. These symptoms seem to bring it into close relationship with almost all other forms of mental disease and may often lead to a mistaken diagnosis. The amount of pioneer work in the histopathology of paresis was enormous, but the recent discovery by Noguchi and Moore of spirochetæ in the brains of paretics, justified just such research and furnished a stimulus to further investigation. The study of the aphasias seems one peculiarly adapted to the concurrent investigation of the psychiatrist and histopathologist, and

ought to determine something for both normal and abnormal psychology.

After a somewhat frigid reception it is noteworthy that the claims of the psycho-analysts are receiving more encouragement from earnest students. Investigation by psycho-analysis promises especially to bridge the gap between the so-called functional neuroses and the definite psychoses. At present the methods of investigation seem not without some danger. It is a matter of history that the introduction of the x-ray resulted in disastrous burns to both physicians and patients, but each season sees improvements added to this important diagnostic and therapeutic aid. If the psycho-analytic technique can be simplified, chastened and standardized, it will add to the number of workers, and more convincing data will be forthcoming on which to determine the merits of a promising means of study.

Our governments in recent years have made enormous strides in dealing with problems of public health. This is especially seen in the effort to establish machinery for prophylaxis in diseases due to microbic infection. They are able to work to advantage, because the causes are established by observation and experiment. In the matter of mental disease, our legislative bodies, because they have the custody of the material, are charged with the responsibility of investigating that material, and of keeping the medical profession informed as to their results. A great economic problem before the state is to prevent the development of mental illness, as it attempts at the present time to prevent the development of established physical diseases.

The duty of investigating demands not only the establishment of laboratories for anatomical physio-chemical, and psychological investigation, but also the equipping of such workshops with men specially trained, who will carry on our proportionate share of the routine and the original work that is to make for progress in psychiatry. It is a matter of provincial pride that we can grow a great proportion of the food used in institutions on institution farms. We will be still more proud when we no longer have to import so much of our scientific data from Germany and the United States. Simply providing a rule that all patients dying in institutions should be autopsied would be a great boon. Nothing is so discouraging as to have a case that has furnished years of clinical study carried away a few minutes after death by the long-lost friends.

The recent announcement of the Prime Minister of Ontario, that a commission is to be appointed to investigate medical educa-



tion and medical problems in general, is a welcome one. It is not too much to hope that they will commence right at home by increasing the facilities for education in mental diseases. This will mean that the staffs of hospitals for insane will have to be organized not only for administrative and custodial duties, but also for investigating and teaching purposes. Teachers must be furnished the opportunity of studying the best educational methods extant, by keeping in touch with the proceedings of societies, and the progress in other lands. In every other branch of medicine practical experience in the wards of hospitals is required by universities. The recent extension of the academic course to five years makes it practicable to require undergraduates to spend at least some portion of their fourth or fifth year in residence in asylums, where the daily study on the wards enables them to piece together the variegated clinical manifestations into completed pictures. The sustained personal acquaintance with a few cases well worked out would do infinitely more to create interest in investigation and confidence in treatment than any series of interrupted demonstrations, no matter how carefully presented. It is as necessary for every practitioner to have a working knowledge of psychiatry, as it is to have a working knowledge of infectious diseases. There can never be enough specialists in psychiatry to reach all the cases that occur. There are not enough now to give satisfaction in medico-legal cases.

In conclusion, I believe the following deductions are warranted:

1. That the incidence of cases showing a greater or less degree of mental illness is larger than we heretofore supposed.
2. That we are not fully equipped to deal with these cases.
3. That as a result of our lack of equipment cases are allowed to progress—where arrest or cure might be looked for.
4. That the best means for physicians to combat the evil of irregular practitioners is to equip themselves more thoroughly to deal with this class of cases, because they are cases upon which quacks fatten.
5. That the remedy lies in more searching investigation and more efficient education.
6. That a more efficient education would result in:
  - (a) A great many cases being arrested before there is any need to send them to an insane asylum.
  - (b) A great many cases now in insane asylums could be treated at home.
7. That the conomic value of the question demands the fullest consideration by the State.



## ON THE RELATIONSHIP BETWEEN TUMOURS PROPER (BLASTOMAS) AND HYPERBLASTOSIS

BY J. GEORGE ADAMI, M.D., Sc.D., LL.D., F.R.S.

*Montreal*

TO-DAY more fully than ever before it is realized that to comprehend the abnormal we must first understand the normal. Thus it is that modern research into the etiology of cancer is more and more occupying itself with enquiries into the phenomena of normal growth. The results already gained from these enquiries render it timely to reconsider a particular form of overgrowth, to which German authorities have given the name "Riesenwuchs." This is so commonly regarded as blastomatous, as belonging to the tumours proper, that neither in English, nor, to my knowledge, in French, has an adequate term been so far afforded. Merely to translate the German term, and speak of "giant growth" conveys no well-defined meaning to the English mind. C. P. White, it is true, has labelled it "progressive hypertrophy," but this is a description rather than a name: I, too, have spoken of it as "blastomatoid" but the expression is adjectival and not substantive. And yet as I hope to show, this type of tissue overgrowth has properties so characteristic as to separate it sharply from the true blastomas, to necessitate its recognition as an order apart, and to demand a precise name whereby to ensure that recognition. Nay, I would say further that it is a notable aid to our understanding of the etiology of malignant growths to make this recognition.

Here to emphasize the distinction, it must be pointed out that judged by the many definitions that have been afforded of a "true" or autonomous tumour, our stereotyped conception of such is that it originates as a *circumscribed* overgrowth of cell elements, not exercising any function of service to the body, or at least becoming separate from the normal tissues in its physiological and functional relationships. Even if we cannot with Cohnheim regard it as derived always from a matrix of superabundant or erratic deposit

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of embryonic elements, we all, I think, are accustomed to accept Ribbert's view that it is self-confined, dependent upon the organism for its nourishment, but otherwise largely if not quite independent. That is our stereotyped mental picture of what constitutes the tumour proper.

Let me approach my subject from what may appear to be a novel, but what I believe to be the correct, standpoint.

The researches upon the functions of ductless glands pursued with increasing activity during the last twenty years have demonstrated in a wholly unexpected manner that sundry of these glands have a remarkable influence over the growth of particular tissues. This is now so well recognized that it is needless for me here to give a detailed statement. Briefly, the outstanding results are these:

1. That specific ductless glands and their internal secretions influence the growth, not of all tissues equally, but of particular tissues. Thus the experimental removal of the whole of the anterior portion of the pituitary is associated with defective growth of the bones, whereas *per contra*, excessive development of the anterior portion of the same gland is associated with excessive growth of bone. Overgrowth of the adrenal cortex is more particularly associated with premature development and overgrowth of the organs of generation. Hypoplasia of the thyroid is associated more particularly with overgrowth of the subcutaneous connective tissue: hypopituitarism with localized or generalized adiposity along with genital deficiency.

2. Such overgrowth or arrest of growth of particular tissues may have associated with it a coincident overgrowth of associated tissues and parts. In the case of giantism associated with excessive development of the anterior portion of the pituitary, we find coincident increased development of surrounding tissues; along with the premature development of the essential organs of generation seen to accompany benign adenomatous tumours of the adrenal cortex, we note an over development of the secondary organs of generation, as also of the muscular system. But this associated growth must be regarded as secondary and coördinate. In each of these cases we are struck by the fact that one particular tissue shows excessive growth, whereas other associated tissues while presenting increased growth, have that growth proportioned rather than over-proportioned to the excessive development of the particular tissue.

3. While recognizing thus that excess or defect of particular internal secretions exercises this specific action on particular tissues,

it is noteworthy that the particular tissues *do not* present a universal hyperplasia or hypoplasia throughout all areas of their distribution. In acromegaly for example, it is the bones of the face, hands, and feet, that are more particularly involved; in pituitary giantism the bones of the limbs show excessive growth rather than those of the trunk. Let it be admitted that mechanical and other possibly deeper reasons exist for this regional overgrowth of one or other tissue. Let us even admit that, as has been suggested, in acromegaly it is a plethoric blood supply, or an activity of the blood-forming organs, in short a primary hæmic change that induces bony overgrowth; it still remains that under the influence of altered internal secretions the growth of one or other tissue is seen to lack proportion as regards the relative regional development of that tissue, just as it lacks proportion as between that tissue and the other tissues of the body.

From this group of cases we pass to another so similar in basal properties that we must, I think, conclude that it is of the same type, the group namely to which it has been customary to limit the name "Riesenwuchs." Of this the most typical example is adiposis and the allied conditions. Even where adiposis is generalized every pathologist is forced to recognize that there is an individual variation in the laying down of the fatty tissue. Some cases, for instance, presenting a large panniculus adiposus exhibit but a meagre deposit of fat in the mesenteries and omentum; and vice versa. We encounter, however, striking examples of local overgrowth of the fatty tissue. I need but recall the symmetrical lipomatosis seen more often in males, involving it may be especially the neck, the submaxillary, or parotid region, but in other cases seen in the mammary region, the perineum and scrotum, or the inguinal region. With these must be noted the characteristic distribution of the fatty overgrowths in Dercum's disease (adiposis dolorosa). While these may be nodular in type, more frequently the deposits while localized are diffuse over the supraclavicular, inframammary and lower scapular regions. How regional is this distribution is frequently noticeable in the extremities when, to quote Sir Dyce Duckworth, "the hands appear to come out as from a cuff, and the foot from a pantaloen." To the same order belongs the remarkable group of perirenal, retroperitoneal and mesenteric lipomas, so-called. These are one and all overgrowths of the fatty tissues normally present in these regions. They are not, let me emphasize, blastomas proper. They are diffuse hyperplasias which only from their extreme extent give the impression of being distinct

tumours, but if carefully examined they are seen to respect the boundaries of the normal tissue, and in fact to pass imperceptibly into the normal fatty tissue around, without any sign of limiting capsule. They cannot be regarded as autonomous, independent developments: they do not come within the accepted definitions of tumours proper, or blastomas. They are conditions of *hyperblastosis*, that is to say of the state of hyperplasia of an individual tissue.

As I say, these localized regional overgrowths of fatty tissue constitute the type example of "*Riesenwuchs*," but what is of particular interest for the development of my thesis is that as a class they appear to be due not to any local irritation, but to internal secretory disturbances, to some lack of equilibrium between the internal secretions, resulting, as in our previous group of cases, not necessarily in a generalized, but in a regional overgrowth of this particular tissue. Notably in the case of Dercum's disease, almost every case which so far has come to autopsy has been characterized by thyroid or pituitary changes or both, while conversely, if I may so express it, we have the authority of one whom I may term the leading authority on obese states and their treatment—Chune Fletcher—that administration of thyroid extract is the one method of treating Dercum's disease that yields favourable results.

Passing to the other members of this group it is true that so far we possess no distinct evidence that they too are associated with internal secretory or metabolic disturbances. Anatomically, however, they present the same general characteristics, and this in so striking a manner that we are forced to consider them as belonging to the same class. Let me enumerate rapidly the more important members, only treating with somewhat more detail conditions which while not generally included as coming under this category not only, I hold, are rightly so included, but find their proper place and proper relationships when so included.

One prominent and characteristic sub-group is in association with the nervous system. In this belongs a most striking form of "*Riesenwuchs*," which until recently has been regarded as a fibromatosis. I refer to that condition of multiple subcutaneous and perineural growths to which so many names have been given: molluscum fibrosum, multiple neurofibromas, neuro-fibromatosis, etc. The observations of Durante, Kohn, Bard, and Vercay taken together, demonstrate convincingly, I think, that these growths are hyperplastic developments of the cells of the sheaths of Schwann, of cells, that is, of neuroblastic origin. These over-

growths beginning often in early life, and developing slowly over long years, respect the normal boundaries of the nerve sheaths, merge imperceptibly at either pole, without defining capsule, into the tissues of the nerve along which they have developed, and in every respect conform in their properties with the multiple fatty growths already enumerated. Closely allied embryogenetically is the condition of gliosis or gliomatosis. Here we have the same slow progressive growth, the same diffuse nature and lack of delimitation; indeed, my own experience leads to the conviction that the majority of the so-called gliomas belong to this category. What is perhaps most well marked example of this condition is seen associated with, and apparently underlying the condition of syringomyelia.

Passing over certain less important examples such as leiomyosis or leiomyomatosis (which, I would point out, is the more correct nomenclature for what gynecologists and modern text-books wrongly term adenomyoma of the uterus), and endotheliosis (such as is seen notably in the spleen in Gaucher's type of splenomegaly, and some cases of Banti's disease),\* I would at greater length call your attention to a most important group of hyperblastoses, those, namely, affecting the lymphatic tissues and the bone marrow.

That I may not be accused of forcing my point, I would here quote the description of one of these allied conditions given by a recent writer whose position is sufficiently indicated by the fact that my quotation is taken from the "Referat" which he was invited to give before last year's meeting of the Deutsche Pathologische Gesellschaft. "The lymph nodes," states Professor Eugen Fränkel, "are liable to be most intensely affected, swelling up into huge packets, and when it is the more superficial lymph nodes that are involved, an immediate diagnosis can be made. Often enough at autopsy it is determined that besides the peripheral lymph nodes the internal collections are implicated: those at the hilus of the lungs, in the mesentery, in the retroperitoneal tissue, exhibit similar change. It is in no wise necessary that the nodes throughout the body are involved to the same degree, although total exemption of one or other group is scarce ever observable. . . . The spleen also shows in general a notable increase

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\*There can now be no question as to the functional, or indeed, superfunctional nature of this striking overgrowth of the sinus cells in the spleen, since Banti has demonstrated that operative removal of the organ terminates the anemia: prevents, that is, the excessive destruction of the red corpuscles.



. . . indeed at times the enlargement of this organ predominates to such a degree that the lymphoid enlargement passes relatively into the background. . . . Cases, however, are not infrequent in which the spleen remains small." And Fränkel points out that microscopically we deal in these cases with what is purely a hyperplasia of the lymphoid tissue. This is a description of the condition which from a primary misfortune in nomenclature, from fastening the attention upon the outcome, rather than upon the underlying state, has for years been a source of confusion: the condition, namely, described by Cohnheim as Pseudoleukæmia, by others as aleukæmic leukæmia, or as the pre-leukæmic stage of leukæmia. For now many years my teaching has been that lymphatic leukæmia is a blastomatoid condition\* and I willingly accept as the preferable nomenclature that supported by Aschoff, Schridde, Hirschfeld and Nägeli, namely, *lymphadenosis* or *lymphadenia*. *The time, indeed, has come, when for clear thinking, the term leukæmia should be relegated, by clinicians and pathologists alike, to its proper symptomatic rank: we should speak of lymphadenosis with or without leukæmia, distinguishing, I should add, between lymphadenosis (lymphatic leukæmia) and myelosis (myelogenous leukæmia).* For what is true of the lymphoid tissue proper obtains also in respect to the elements of the bone marrow; these also may undergo diffuse regional hyperplasia, with the complication that in the marrow there exist elements of more than one type, and one or other of these may exhibit hyperplasia. Thus in general lymphadenosis the lymphocytic or lymphoblastic elements of the bone marrow may be coincidently involved. In what I think we may term myelosis proper (myelogenous leukæmia) it is the myelocytes that in the main are hyperplastic, and this to such an extent that the immature myelocytes are discharged into the blood stream, and at times, such is the stimulus to the formation of this type of cell that organs like the spleen and liver resume the power they possessed in embryonic life, and once again become the site of myelocyte production.

The limitations set to communications before this Congress, forbid that I should do more than sketch the broad outlines of my subject. I can merely state that lymphadenosis (leukæmic and aleukæmic lymphatic leukæmia) and myelosis (myelogenous leukæmia) are system diseases, hyperblastoses of the lymphoid and myeloid tissues respectively of the whole organism, which

\* Vide Adami, "Principles of Pathology," first edition, Vol. i., 1908, p. 678 et seq.



under the influence of localization and regional intensity of the process in the different areas of the body, are apt to induce numerous variations in the facies of the disease. Saying this it is necessary, parenthetically, to exclude Hodgkin's disease from this group of hyperblastoses: with the majority of recent workers, I regard this as of irritative and chronic inflammatory origin, as a lymphogranulomatosis.

We must now pass on to the consideration of another feature of these hyperblastoses, which for the sake of clearness I have so far studiously kept in the background. I refer to their liability to present malignant change. This may exhibit itself either as a primary or a secondary phenomenon, and may be of localized origin or generalized. It is characteristic not only of the lymphadenoses and myeloses, but of the hyperblastoses as a group, that instead of the constituent cells being of fully formed adult type, they may either locally or diffusely exhibit actively vegetative or "embryonic" characters. This, after all, is only what might be expected from what we know of the general phenomena of growth: it is the cell that has normal relationships that is most apt to attain, and to retain complete differentiation. Hyperplasia connotes cell proliferation, and where two cells take and retain the place of one, one, if not both, of those cells must fail to preserve the normal relationship to nutrient vessel, stroma, etc. Hyperplasia thus favours anaplasia of at least a portion of the cell elements of the affected part. Thus we find that a portion of, or all the cells of a gliosis may take on a more sarcomatous type (I use the term here strictly in a histological sense); areas of a liposis (e.g. of a retroperitoneal "lipoma") or of a leiomyosis may become sarcomatous, and as regards the myeloses and lymphadenoses, we observe a very interesting set of conditions.

The so-called multiple myeloma, for example, has all the features of a hyperblastosis—excessive development occurring in certain bones only, and absence of limitation save by the natural boundaries of the involved areas—with this in addition, that the constituent cells are of "embryonic" character, so embryonic that here and there they are liable to exhibit active malignancy, and may not merely absorb the bony trabeculae but may infiltrate the periosteum and surrounding tissues and even, if rarely, may give rise to metastases in other organs at a distance, or to quote Berlinger, "myeloma is becoming to an increasing extent regarded as a systemic disease of a malignant type." So vegetative is the type of cell in many of these cases that, as well known, there is

active debate regarding their origin, whether they belong to the lymphoblastic or to the myeloblastic type. The indications appear to be more and more convincing that there may be a specific hyperblastosis involving each distinct element of the bone marrow—the lymphoblasts, the myeloblasts, and the erythroblasts (as in Ribbert's well-known case of megaloblastic overgrowth which he held to be an erythroblastoma (more accurately an erythroblastomatosis)).

Of peculiar interest in this connection are the more recent observations upon Chloroma. Here there are the same regional ill-defined overgrowths most often occurring in early life and involving particularly the skull, ribs or sternum. Constantly where the blood has been examined, the picture has been that of leukæmia, with predominance of the large or relatively large non-granular mononuclear cell, although in a small proportion of cases there has been granular mononuclears. The picture has been that of either acute lymphatic or of acute myelogenous leukæmia. By the employment of the oxidase (indophenol) test\* which differentiates between lymphocytes and myelocytes, my colleague, Professor Burgess, has demonstrated clearly that the marrow growths and the characteristic blood cells in this condition are myelogenous, not lymphogenous. The condition is a myelomatosis, or to use ordinary terminology an "acute myelogenous leukæmia," and confirming Schultze, Longcope and Cooke, and others, Burgess points out that cases of so-called acute lymphatic leukæmia with "large lymphocytes" are truly cases of acute myelogenous leukæmia (or strictly of acute myelomatosis with leukæmia).†

Parallel to these conditions affecting the bone marrow of particular localities with their liability to malignancy, we may cite the not infrequent mediastinal tumour, which originating in the thymus (and perhaps sometimes in the mediastinal lymph nodes) shows a striking liability to become locally malignant, infiltrating all the surrounding tissues.

From these intermediate forms we pass on by imperceptible

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\* Burgess, *Journ. of Med. Research* 27 : 1912 : 133.

† NOTE: I must, however, disagree with my colleague in regarding leukæmia as a blood metastasis. The *symptom*, leukæmia is not an index of malignancy: the discharge of leucocytes into the blood is not of the nature of a malignant infiltration: on the contrary it is best regarded as the outcome of chemiotactic phenomena, as an attraction of marrow cells by something circulating in the blood. There may be extensive lymphadenosis or myelosis without leukæmia, or leukæmia may be present for a time, and then disappear—and reappear.

gradations to cases of primary malignant hyperblastosis, to cases of diffuse lympho-sarcomatosis and myelosarcomatosis.

If the views here laid down, and the relationships of this group of conditions be correct, we arrive at certain interesting conclusions. Namely, and first, that whatever be the essential cause of the autonomous blastomas, we have in these hyperblastoses a group of diffuse overgrowths which by analogy must be regarded as due to disturbances of metabolic equilibrium; which, further, in their simple non-malignant stages at least, may possibly be combatted eventually (certainly not to-day) along the lines of organotherapy. Secondly, that every transition is observable in this series between the development of overgrowths of fully differentiated tissue, non-malignant grades of anaplasia, and diffuse malignant infiltrative growths. This suggests strongly that the causation of malignancy is not to be sought for in the entry and action of external agencies, but in stimulation of the growth properties of specific tissues by changes in what I may term tissue equilibrium. And lastly, that the more we study, the more we become impressed by the fact that the number of conditions of hyperblastosis, whether simple or malignant, is relatively considerable, so considerable as to deserve separate consideration.

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A NEW hospital was opened at Powell River, B.C., in September. This hospital, erected by Andrew Henderson, is a handsome two-storey building, occupying an elevation overlooking the beautiful village and harbour of Powell River. It is capable of accommodating twenty-five patients without overcrowding. There are two commodious surgical and medical wards and a number of private wards. The operating room is fitted up in accord with modern ideas.

## NOTES ON HUNTINGTON'S CHOREA

BY GEO. A. SHANNON, M.B., SPARTA, ONTARIO

**T**HE following notes are based upon an examination of the records of four generations of two unrelated families, each descended from a choreic ancestor, and upon a personal acquaintance during many years, with twenty-four adult members of these families.

The present day conception of hereditary chorea is that presented by Huntington in his classic paper published in 1872, and but slightly modified by other investigators in the forty years since its publication. In these notes I have taken particular care to verify statements made concerning cases that appear to differ from the commonly accepted description of the disease.

The total number of persons included in the two families is ninety-nine, of whom thirty-five are children or have died before reaching maturity. Both groups originated in the Eastern States, the choreic ancestress of the one having been born in Eastern New York in 1780, where she died forty years later; and the choreic progenitor of the other being a native of New England, whence he emigrated to Ontario early in the last century. It will be remembered that Huntington's material was found in Long Island.

Ten cases of hereditary chorea occurred in the four generations, and there are not wanting evidences of subnormal nervous equipment affecting the whole group. I know them to possess a smaller mental endowment than the average. Perhaps a more positive indication of defective nervous machinery is this, that among these twenty-four adults there is one case of epilepsy major, one of epilepsy minor, one of tic affecting the platysma, one of chronic insomnia, one of choreiform movements lasting about one year and followed by recovery and three of a distinctly degenerate type. There exists in both families a familial heteromorphic neurosis, one phase of which, one might say, is Huntington's chorea. Contrary to what appears to have been observed in other choreic groups, there have been no instances of suicide or attempted suicide or of acts of violence. In view of the hopeless misery of those in the later stages of the disease, and the ever-present dread that one's relatives or children may be tainted, it does not seem to me other than normal for any of these persons to consider suicide

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Read at the Annual Meeting of the Canadian Medical Association, London, Ontario, June, 1913.

as a means of relief. As a matter of historical interest a member of one of the families was executed here (in London) in 1838 for complicity in the McKenzie Rebellion. Unfortunately for this man, the medical expert had not yet been evolved.

To study the choreic individuals of these families it seems better to group them under various etiologic and symptomatic heads than to attempt to study each patient separately, and that method has been adopted here. I note first that *sex* as an etiologic factor was in this series of no import, five of the affected persons being of one sex and five of the other.

As to the *age* at which the disease became manifest, one patient was choreic at thirty, one at twenty-six, two at twenty-four or twenty-five, one in early childhood; the other five are not determined, but none exceeded thirty years. The average of the nine adult cases was twenty-eight years. The statement that in successive generations the onset of the disease is delayed is not borne out by this group of patients. The case which occurred in early childhood, noted above, deserves special consideration, since the literature with which I am acquainted does not contain many references to instances of this kind. In Osler's "System," for instance, reference is made to but one case and doubt is expressed as to the true character of the disease.

This child was the daughter of a choreic father, and exhibited choreiform movements as early as the fourth year. She was at this time of average height and weight but there was mental dulness. Speech was delayed until the third year, and walking until the fifth. From the fifth year until her death at nine years and five months, the chorea was steadily progressive so that towards the end of her life she was unable to walk or to feed herself, from loss of muscular control, and her speech became unintelligible except to those who had the care of her. During the last two years of her life she passed the daytime tied in an arm chair to prevent falling. The mental powers deteriorated to imbecility. There was indifference as to soiling by fæces or urine. At this time she was thin and anæmic. Death occurred as stated, at nine and a half years. I am unable to distinguish this case from one of Huntington's chorea.

*Age at death.* Five females died at forty-five, forty-five, forty, thirty-five, and ten respectively, and four males at sixty-five, sixty, forty-five and forty-two; the average of eight cases in the adult being forty-seven years. Important factors in determining the length of life were *neglect* and *intercurrent disease*. In three instances, the condition in which the choreic lived was revolting in the extreme. One patient, dying as late as 1885,



lived for months in a locked room without adequate toilet accessories, and received his food on the floor. The role played by intercurrent disease in this series cannot be accurately determined. Solicitude for the well-being of a defective is a very rare virtue in my experience. It is significant that the average duration of life in the males was twelve years longer than in the adult females.

*Heredity.* The Mendelian law of dominant inheritance was followed by nine patients, each of these having a choreic father or mother. Jelliffe has stated very recently that there is now adequate evidence to show that this rule is invariable in hereditary chorea. But I have now under observation a patient, who, I think, is an exception to it. His mother is forty-four and apart from a chronic insomnia is in fair health. His maternal grandfather had choreiform trouble of some sort for a year during adolescence, but recovered, and died of cancer at the age of seventy. The great-grandfather died of chorea. This young man, aged twenty-six, a farmer, has had the common diseases of childhood but no serious illness, and is now in good health apart from the condition noted below. The physical senses are normal. He is below the average in intellect and from the cranial conformation, and the facial expression is obviously of a degenerate type. He has irregular twitching of the muscles of the face and neck, and of the shoulders and chest, persistent during his waking hours. The movements are most marked in the face and neck, and are accompanied by an audible "sniff" repeated at intervals varying from a few seconds to one or two minutes. The movements are of sufficient intensity to produce a shrugging of the shoulders and a noticeable shake of the upper half of the body. Neither speech nor gait is affected. There is no tendency to recovery. On the contrary the symptoms are now more marked than they were three years ago. The differential diagnosis is as between hereditary chorea and habit spasm.

Of the ten choreics under consideration five married. There were no children of one union, and of the other four, twenty children were born, of whom seven, or 35 per cent., were choreic.

*Nomenclature.* Since there are at least five diseases, each distinct as to etiology, morbid anatomy, symptoms and prognosis, all included under the name chorea, a revision of the nomenclature seems to be needed. That the present nosology leads to error is well shown in the list of causes of death issued this year by the Registrar-General of Ontario. This list is in accordance with the International List adopted at Paris in July, 1909, and in it chorea is used as the name of a single disease, without any qualifying word or words. It is number 72.

## DISEASES OF THE THYROID GLAND VIEWED FROM THE STANDPOINT OF THE SURGEON

By A. J. OCHSNER, M.D., LL.D., CHICAGO

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of the University of Illinois, Chicago*

THE following considerations were based upon a study of the literature which the preparation of a book on this subject necessitated; upon the clinical observations of an enormous number of patients suffering from thyroid disease of every variety; and upon a personal experience of more than eight hundred cases operated upon by me for the relief of various forms of thyroid disease.

Little will be said of simple enlargement of the gland due to various causes because the removal of such a gland for the relief of pressure or deformity or obstruction to trachea or oesophagus, or for the relief of discomfort due to the weight of the tumor, differs in no way from the operation for the result of Graves' disease, to be described and illustrated with stereoptican views presently. For the relief of inflammatory disease the treatment does not differ from that applied to other inflammatory conditions.

Malignant disease is beyond permanent surgical relief when it has advanced sufficiently to make a diagnosis possible. In my own experience several patients have remained free from recurrence in whom a carcinoma was found upon making a microscopic examination of a thyroid gland removed for what was supposed to be a non-malignant condition at the time of the operation; but of those in whom a diagnosis of malignancy was made before the operation there have been no permanent cures. The same experience has been reported by many other surgeons. The only case in which there is apparently a permanent cure is one reported by Prof. Gluck, in which the disease which was primarily located in the larynx had extended to the thyroid gland and in which he had removed both the larynx and the thyroid gland, the patient having

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remained in excellent health for a period of seven years when the case was reported.

Consequently it will be best not to discuss the surgical treatment of these conditions more fully, for the time at my disposal can be used to a better purpose by concentrating upon the surgical aspects of Graves' disease, at present a very live subject. At the onset it may be best to state that the surgical treatment of Graves' disease can apply only to those cases in which dietetic, hygienic, and internal treatment has been carefully and systematically tried. By this I do not mean treatment with remedies, but more especially treatment with absolute rest. And this again should not mean only physical rest but also to the fullest extent mental, nervous, and above all emotional rest, in a restful atmosphere with restful surroundings. The diet should be carefully supervised and should be composed chiefly of milk, cream, buttermilk, cooked vegetables, cooked fruits, and fruit juices and eggs. No meat should be given and absolutely no tea, coffee, or alcohol. Tobacco should not be used.

A few remedies like phosphate of soda, hydrobromate of quinine, and belladonna may have some value, but under no condition should iodine in any form, or thyroid extract, or dessicated thyroid gland be given. Personally, I have seen several deaths as a result of the administration of these remedies in patients who undoubtedly could have recovered, had their condition of hyperthyroidism not been increased to a fatal dose by the addition of these remedies.

Taking then a case in which internal, dietetic, and hygienic treatment has been carefully tried and has failed, we may reasonably consider it a surgical case. It is not necessary here to dwell upon the diagnosis except to say that the symptoms should be recognized early and that when any one of the typical symptoms is discovered during the progress of an examination, the greatest care should be exercised to make a diagnosis before the patient has been exposed to the harmful effects of hyperthyroidism for a sufficient period to produce serious injury, especially to the circulatory, the nervous and the muscular systems.

The symptoms do not always appear in the same order, but in a general way they are likely to be grouped in the following order although in many cases some of these symptoms may never occur. Taking for granted that a careful diagnosis has been made and that the treatment with rest, diet, hygiene and remedies—possibly including the serum treatment—has failed, should we operate upon

all cases of Graves' disease, and when should we operate upon them? Landstrom has demonstrated positively that all degenerative changes which have taken place in the tissues as a result of hyperthyroidism are permanent even after the diseased gland has been removed. A dilated heart for instance will never be reduced to normal, although it may come down to nearly a normal number of beats per minute simply because the irritation due to the presence of an excessive amount of thyroid secretion in the blood has ceased with the removal of the secreting organ. If an unusual strain is put upon such a heart by some form of over exertion, it will, of course, suffer because of the weakness of the muscle which has resulted from the long continued exposure to the thyroid poison. It is consequently of great importance to operate as early as possible upon these cases after it has become clear that rest, hygiene, and diet have failed to cure.

We must, however, bear in mind that there is a form of physiological hyperthyroidism. The thyroid gland seems to have the power to work ahead as it were to prepare the body for an emergency. For example during pregnancy when the mother must produce the bony skeleton of the foetus and the soft portions of its body, during puberty when the pelvic portion of the skeleton grows very rapidly. At these times there is a physiological hypertrophy of the thyroid gland, and a physiological form of hyperthyroidism is apparent, a tendency for the thyroid gland to keep up its balance for the trophic changes which are unusually extensive at these times. So long as this balance is maintained everything goes well, but if the balance is upset in favour of non-physiological hyperthyroidism, then the various well-known symptoms of Graves' disease may begin to appear. These may be limited to a mild tremor or tachycardia, or both, which may remain for a time and disappear or they may continue in a mild form for a long period of time without being recognized as indicating a definite disease.

On the other hand the effects of this loss of balance may progress to so marked an extent that many or all of the characteristic symptoms may become apparent, making a positive diagnosis easy.

These symptoms usually come on in the following order, but they may appear in any order; indeed different individuals seem to have different portions of the body upon which this poison has a selective action; but in most cases the symptoms, if followed from the beginning, are likely to take the following order: tachycardia; enlargement of some portion of the thyroid gland; muscular weak-

ness; nervous excitability; exophthalmos; pulsation of thyroid gland; mental deficiency; vertigo; Grafe's, Stellwag's, Moebius', and Byrne's signs; intestinal symptoms, nausea, vomiting, diarrhoea; intermittent dyspnoea; sweating. All of these conditions are increased by physical, mental, or emotional fatigue and also by taking extract or iodine. These remedies are so dangerous that they should never be given experimentally. In advanced cases one commonly encounters emaciation, anæmia, œdema of eyelids, and general œdema and pigmentation of the skin. The blood shows an increase in the lymphocytes and a decrease in the polymorphonuclear leucocytes.

In the year 1884, von Rehn observed in two cases, in which he had removed goitres that had marked symptoms of Graves' disease before the operation, that these symptoms subsided to a marked extent after the patients had recovered from the operations. Two years later Moebius advanced the idea that Graves' disease is the result of a hypersecretion of the enlarged thyroid gland and that the proper treatment of this condition must consist in reducing this secretion.

Before this time the presence of Graves' disease was looked upon as almost an absolute contraindication to any operation, and especially to an operation upon the thyroid gland. From this time on, however, surgeons in various countries began to operate upon these cases. I performed my first operation for this condition in 1891, twenty-two years ago. The patient's pulse which rarely dropped below one hundred and forty beats per minute during a physical examination before the time of operation, as a rule has remained below eighty since that time.

Before speaking of the features of the operation itself which have an important relation to the success of surgical treatment, it is well to refer to the importance of selecting the proper time for operation. In the first place, it is not proper to operate on cases whose hearts are hopelessly dilated as a result of the poisonous effect of long continued hyperthyroidism upon the muscles of this organ. Such cases can live a little longer if treated with rest, while they will not be benefited if they recover from the operation, and they are not likely to recover.

The next class, however, is the one which taxes most severely the good judgement of the surgeon. Most cases of Graves' disease have periods of exacerbation of hyperthyroidism. If an operation is performed near the height of these exacerbations these patients are exceedingly dangerous risks, but if one waits until this paroxysm



has passed the operation can be performed with comparative safety. It also requires much judgement to recognize what might be called a reasonable margin of safety. Many of these patients will safely pass through a slight operation consisting of the ligation of one or two sets of vessels, when they would not live were one entire lobe removed. In severe cases one is especially tempted to do too much by removing one entire lobe together with the isthmus and a portion of the other lobe. It is much better to operate in two or three or even four stages than to transgress the margin of safety.

It is extremely important to reduce the amount of traumatism to a minimum. There can be no doubt that there is a greater degree of post operative hyperthyroidism in cases in which the surgeon has inflicted much traumatism during the operation than in those in which the slightest possible amount of injury has been done to the tissues.

Again, it is well to refer in a general way to the importance of careful dietetic and hygienic after-treatment. I have been consulted by a great many patients who had been operated upon elsewhere, who had considered themselves well a short time after the operation and consequently had returned to their vicious mode of living, with the result that they appeared as hopeless physical, nervous and in some cases also mental wrecks.

Most of these patients originally might have avoided the disease had their diet, their habits of life, their hygiene, and their environment been different. The after-treatment should prevent them from falling into their former errors; late hours, social duties, family troubles, business worries, the use of tea, coffee, tobacco and alcohol are among the worst enemies of the patient who has recovered from a thyroidectomy. This should be thoroughly impressed upon them. They should also be warned against becoming constipated. Autointoxication works badly with these patients. Very high altitudes and all forms of physical, mental, and emotional exhaustion must be prevented. I give each patient short concise written instructions in all of these directions.

The first point to be considered in connexion with the operation is the danger from anæsthesia which consists, first, in the anæsthetic itself; second, in the danger from asphyxiation due to accumulation of mucus in the larynx; third, in the danger from post operative pneumonia.

Some years ago, Moebius expressed the opinion that the harm to the patient from nervous excitement due to being awake during

the operation performed under local anæsthesia is greater than the harm done by the administration of ether. I am confident that this position is correct and for this reason we now give ether by the drop method regularly in all cases of thyroidectomy. By employing the following plan we avoid all of the objectionable features.

Half an hour before beginning the administration of the ether a hypodermic injection of  $\frac{1}{4}$  of a grain of morphia and 1-100 of a grain of atropin is given. This relieves the patient of all anxiety and excitement. Ether is then given very slowly by the drop method (first introduced in my clinic twenty-two years ago) until the patient is thoroughly anæsthetized. Taking 70 to be the normal pulse beat, the excess is usually reduced from 25 to 35 per cent. during the operation, that is to say if the patient's pulse beat was 150 before the operation, it is usually reduced to from 130 to 110 during the operation and it frequently remains as low or lower during the period of convalescence. After the patient is thoroughly anæsthetized, the head of the table is raised to an angle of  $45^\circ$ , the jaw is held forward by a reliable assistant, the mouth and nose are covered with eight thicknesses of gauze to prevent the patient from breathing microbes into the wound and the operation is completed without the administration of any more anæsthetic. This reduces the amount of anæsthetic used to a minimum.

The morphia keeps the patient from being sensitive to the instruments, the atropin prevents the accumulation of mucus. The elevation of the head produces a certain degree of cerebral anæmia which aids the anæsthesia. The hæmorrhage is also reduced by this position. When the operation is completed the patient has breathed out most of the anæsthetic and when the head is lowered she is usually awake and may be put to bed in a semi-sitting position. This virtually eliminates the tendency to pneumonia.

It is important to plan the various steps of the operation so that each vessel can be caught between two pairs of forceps before it is cut in order to reduce the loss of blood to a minimum and at the same time to prevent soiling of the wound surface which retards the future steps of the operation. It is better to clamp the muscles in front of the thyroid gland between two pairs of forceps than to work in the dark in cases in which one cannot bring the gland forward readily. These muscles can be sutured perfectly with catgut after the gland has been removed.

The superior thyroid artery and vein are first caught between two pairs of forceps and cut, then the lower pole of the gland is caught so that the forceps will include the inferior thyroid artery and vein and so that it will still be far enough forward to avoid the recurrent laryngeal nerve where it passes between the gland and the trachea and also the inferior parathyroid gland. A considerable portion of the posterior capsule of the gland is left in position at this point which will protect these structures.

As has been said before, it is always wise to remain quite on the right side of the margin of safety. If the patient is in an excellent condition, it is safe to remove one entire lobe together with the isthmus and the lower half of the other lobe, but this is often unsafe and quite as often unnecessary. A portion of one lobe approximating in weight to a normal thyroid gland should be left.

All vessels should be carefully ligated because these patients do not bear loss of blood well and the veins are greatly dilated and very thin walled, and consequently bleed very freely unless carefully ligated.

In a few cases we have failed to drain and in these cases we have observed post operative hyperthyroidism. Kocher pointed out the toxicity of the blood in such cases and our experience seems to bear this out. We now constantly drain by means of a little gauze drain and by the Kocher glass drain through a buttonhole two cm. below the margin of the wound. In order to secure good cosmetic results we always make the symmetrical transverse, so-called collar, incision of Kocher.

With these precautions the mortality after this operation is exceedingly low. In our experience it has been less than 2 per cent. since we have applied the principles which have just been described.

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For the purpose of resisting any attempts that may be made to impose compulsory vaccination on either children or adults and to oppose "the granting of a monopoly of healing practice to any system or systems of healing," the Alberta Medical Freedom League has just been formed in this city with branches in all the principal centres of Alberta.

—*Calgary Herald*, October 8th, 1913.

### Case Reports

#### A CASE OF MASTOIDITIS WITH PERISINUS ABSCESS AND PARALYSIS OF ONE LEG

ON March 14th last, Edith T. was admitted to my service in the Toronto General Hospital, complaining of severe headache in the left temporal and occipital regions, with pain and purulent discharge from the left ear. She was mentally very dull and apathetic, the tongue was dry and coated, the breath foul, the teeth and gums were covered with sordes, and the general appearance was that of severe toxæmia. The patient was well nourished and inclined to be fleshy. She seemed markedly prostrated. She walked with difficulty. Examination showed the chest negative, the abdomen slightly distended without rigidity or tenderness. There had been no movement of the bowels for a week previous to admission.

She stated that for some time she had suffered from la grippe accompanied by sore throat and cold in the head for which she had received no treatment. On March 17th, she had developed pain in the left ear with deafness—the pain radiating above and behind the ear and down the side of the neck. This pain was continuous for five days, when a purulent discharge drained from the ear. There had never been any previous trouble in her ear.

The left ear showed a thick purulent discharge in the canal, but it was not of great quantity. There was a large perforation in the tympanic membrane which did not look recent, the upper part of the membrane was thick and granular, the long process of the malleus was not seen, no sagging whatever of the posterior or superior wall of the canal was present, there was no redness or œdema of the mastoid process, and but a slight evidence of tenderness at the tip. The temperature was 99°, pulse 98, and respirations 22. Active purging of the bowels, and the usual treatment for acute otitis were at once instituted, and the patient kept under close observation.

Although the appearance of the ear did not correspond with the history given by the patient, it was not until several days after her admission to the hospital, when the patient's mother was located, that the following additional and important information

was obtained. In early childhood, in England, she developed scarlatina which was followed by an acute purulent left otitis media. It was thought she had made a complete recovery as there was no recurrence of discharge from the ear, and with the exception of an occasional earache, she had been very healthy and had suffered from no severe illness. A few weeks previous to admission, however, she had become totally unlike her previous self and showed a change in disposition, becoming irritable, impulsive, difficult to get along with, and extremely bad tempered. Finally she had left home and taken a place as a domestic, her whereabouts being unknown to her family until they were notified of her illness in the hospital.

On March 15th (second day) the patient was extremely dull. The temperature rose at noon to 103°, with a pulse of 130. There was no change, however, in the mastoid symptoms or in the appearance of the auditory canal, and in the evening the temperature dropped to 99°, with a pulse of 100.

The following day (third day) the temperature rose again to 103°, the ear appeared as before, the discharge was still moderate in quantity, and what tenderness there was at the tip was definitely less in amount. She complained, however, of intense frontal headache, and in spite of the purging measures the constipation was very obstinate.

On the fourth day the temperature did not rise above 102°, and the tenderness of the tip had disappeared. The frontal headache was very acute, the pain radiating around the left side to the occiput. The patient for the first time complained of stiffness in the lower limbs, tingling in the fingers, and hyperæsthetic areas all over the body. She stated that her head felt sore lying on the pillow and that her back felt stiff. Mentally she was quite clear when roused, but appeared very drowsy when left alone. The patellar reflexes were marked, neither Kernig's nor Babinski's signs were present. Strong light caused pain in her eyes, the pupils were equal and reacted normally, but she complained of considerable pain on rotating the eyes, and on that account the presence or absence of nystagmus was not elicited. The white cell count was 16,200, 80 per cent. of which were polymorphonuclears. The blood culture was negative.

On the fifth day a consultation was held with Dr. Graham Chambers, and it was then observed that the patient had developed over night a complete motor paralysis of the right leg with foot drop. Kernig's sign was now markedly present and the Babinski slightly in evidence, but sensory disturbances were absent. Pain was very



severe all over the head with a feeling of great pressure in the frontal region. Vision was good, the pupils reacted normally, but strong light and efforts at rotation were painful, and slight proptosis of both eyeballs was observed. There was still no tenderness over the mastoid, no swelling, redness, nor any sagging of the walls of the canal. The history mentioned above had now been obtained from the mother, and it was decided to explore the mastoid on the day following.

During the night the patient had a chill followed by a rise of temperature to 105°, with a pulse of 120 and projectile vomiting. The cerebro-spinal fluid was examined and showed 160 cells per cmm.

On the sixth day, assisted by Dr. Royce, I opened the mastoid and found the cortex extremely hard and very thick. The cells were small and few and contained pus under pressure. The lateral sinus was remarkably far forward, and when uncovered, pus welled up in abundance. The sinus wall appeared healthy, but, while detaching the bone, a small perforation was made and a very free flow of blood followed, necessitating packing. The dura was exposed over the antrum and tegmen tympani and appeared normal. The radical operation was completed but, on account of the packing in the sinus, the wound was left open.

On March 20th (seventh day) the following notes were made. After operation the temperature fell to normal, but rose in the evening to 101°. The patient was mentally clear, but still dull and drowsy when left alone, and complained of severe frontal headache radiating over vertex to occiput. Paralysis of the right leg was less, as she could bend the knee slightly on great effort, but this improvement did not persist and the proptosis of both eyes was more marked.

On March 21st (eighth day) the morning temperature was normal, the pain was very acute all over the head with frontal tension, but the other symptoms were the same as the day previous. After consultation with Dr. Graham Chambers and Dr. George Bingham, it was decided that Dr. Bingham should trephine over the leg centre in the left Rolandic area and locate and drain, if possible, the abscess effecting the right leg paralysis. While preparing the patient for operation it was observed that she showed marked incoördination in her arm movements, and was unable to locate accurately with either hand objects placed for her to touch. The movements were stiff and awkward especially on the right side. Proptosis of both eyeballs became very marked, and a diplopia

developed with inability to rotate the eyes to the left. She became semi-delirious and suddenly had a severe convulsion, commencing in the right hand and spreading over the entire body with the exception of the right leg. The eyes were rotated upwards and to the right and the head drawn to the same side. The convulsion lasted five minutes and was followed for a time by a semi-comatose state.

On March 22nd (ninth day) Dr. Bingham trephined over the leg centre in the Rolandic area on the left side. The skull was very thick and hard, practically no diploic bone being present. When the dura was incised the brain substance appeared congested and softened. A director was passed into the brain tissue downwards and forwards for about two and a half inches, and pus and serum of a very bad odour drained out. A cigarette drain was inserted and the wound closed. Cultures were made from the pus in the brain, from the pus in the perisinus abscess, and from the canal of the ear. All showed the *streptococcus pyogenes aureus*.

The patient never rallied after the operation, and died the following morning. A postmortem was obtained upon the head only and the notes of this are as follows:

On removing the skull cap the left side of the brain appeared to be bathed in pus which drained away. The pial vessels showed congestion on the left side, especially at the base and over the occipital and temporal lobes. About one inch from the tip of the temporo-sphenoidal lobe, the cortex showed softening and some necrosis of the tissue. Extending from this posteriorly between the occipital lobe and the cerebellum the arachnoid was covered with a thick fibrinous exudate, which followed the course of the sinus on the left side to the extreme posterior and internal margin of the occipital lobe, from where it extended upwards and forwards along the inner aspect of the left cerebral hemisphere to the fissure of Rolando. Over the Rolandic area, in its upper portion, a focus 3 cm. in diameter showed marked congestion of the vessels, and necrosis of the cerebral tissue covered with thick fibrin and pus. This extended into the brain substance for the distance of about 2 cm. Extending below this into the lateral ventricle was apparently a trocal puncture, the surrounding brain slightly hæmorrhagic and softened. Both lateral ventricles were congested and contained a small amount of purulent material. In venal sections the rest of the brain was apparently normal.

It is of interest to note the course taken by the perisinus abscess in reaching and focussing itself in the Rolandic area without

other portions of the brain tissue showing signs of necrosis or abscess formation. The small area of softening in the temporo-sphenoidal lobe is seemingly post-operative.

The anatomical diagnosis was: (1) Acute meningitis extending from the temporo-sphenoidal lobe along the course of the sinus. (2) Abscess of brain, Rolandic area. (3) Acute appendicitis. (4) Acute mastoiditis.

Thus runs the history of what must be regarded as an entirely unique case of brain abscess. In the first stage are noticeable the absence of vomiting, and of low temperatures, with no chill until the fourth day. In the second there was not the usual lessening of pain except in the mastoid, and while there was dulness and drowsiness, there was neither slow cerebration, monosyllabic answer, nor lack of sustained attention, while the temperature was high and the pulse rapid. Had the abscess been larger the pulse would probably have been slower. Constipation was present, but was, perhaps incorrectly, ascribed to the carelessness of the patient. The meningitis probably dated back to before the time at which she left her mother's house.

It is a remarkable coincidence that the father of the patient died two years ago from cerebral abscess of the temporo-sphenoidal lobe following left-sided chronic mastoiditis. He was delirious when admitted to hospital, but had suffered from recognized middle ear symptoms for six years, and otherwise presented the typical symptoms of a cerebral abscess.

Here are two lives lost as the result of failure to recognize the seriousness of chronic middle ear disease, and the postmortem records of our hospitals are full of such cases. Had the mastoids of these patients been opened while they were well and strong, the fatal termination would hardly have been abscess of the brain. The lesson to be learned by the family practitioner is obvious.

Toronto

D. J. GIBB WISHART, M.D.

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THE Sixth Congress of Médecins de Langue Française de l'Amérique du Nord will take place at Quebec in September, 1914. The following officers have been elected: president, Dr. A. Roussseau; general secretary, Dr. A. Vallée; treasurer, Dr. A. Lessard.

## Editorial

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### THE MEDICAL SCHOOLS

**T**HE Canadian medical schools are again in full operation; and from all come accounts of enlarged courses and strengthened faculties. In Dalhousie Dr. John Stewart has been appointed professor of surgery in succession to Dr. N. E. Mackay, who had resigned. The department of pathology is to be accommodated in a building just erected by the provincial government. The building was designed by Dr. M. A. Lindsay, professor of pathology, and everything which experience could suggest was included to meet the needs of the subject. The departments of chemistry and physics will be housed in the new building which the university is erecting on the site overlooking the North-west Arm. The faculty of medicine of the University of Dalhousie conducts the only school of medicine in Canada east of Montreal. It supplies the needs of those provinces and of Newfoundland. At the opening of the session twenty-four new students were enrolled. This includes, however, students in the department of dentistry. It is of interest to note that a number of students from the faculty of Arts have entered for physiology, that subject having been recognized as optional for graduation in Arts.

The Western University, of London, has established this year a faculty of medicine, on a very modern plan of organization by taking over from the original founders of the London Medical School all equipment, and renting from them the original building. The Board of Governors of Western University have appointed as dean, Dr. H. A. McCallum; as registrar, Dr. W. E. Waugh; and as an executive committee in full control, subject to the Board of Governors only, the

dean, the registrar, and four others, namely, Drs. H. Meek, H. Williams, F. P. Drake, and H. W. Hill. This executive committee created six departments in the medical faculty, namely, anatomy, physiology, pathology, medicine, surgery, gynæcology, and obstetrics. Under one or other of these departments the "chairs" of older organizations are placed. The head of each of these six departments is known as the chief of that department, thus doing away with the well-worn term "professor." Those associated with each chief are designated as instructors or teachers, as their work may be practical or didactic. The chiefs of five departments have been appointed and a chief for the department of physiology is now being sought. There are now connected with the teaching staff six men, giving all their time, two in the medical department, and four in the Institute of Public Health. The former represent anatomy, physiology, and pharmacology, the latter, pathology, bacteriology, chemistry, physics, and public health. These five subjects are taught under the Institute of Public Health, which is organized as a separate faculty of Western University. Some of these subjects are being more and more regarded in educational circles as university subjects, instead of medical school subjects, and are so organized and financed in the Western University. Dr. Paul S. McKibbin, for six years teacher in the department of anatomy in the University of Chicago, has been appointed chief of the department of anatomy. With a high standard of admission and a five year's course, the attendance is below that of former years; but this has been the inevitable first result of such changes elsewhere, and has invariably been followed by a reaction later on, resulting in securing better students and an increased attendance.

The medical faculty of Queen's University is now an integral part of the university, financially as well as academically. Since 1892 there had been academic union but a financial independence. Now, however, the Medical Faculty has the same relation to the Board of Trustees as the Faculty



of Arts, and the Board has assumed full financial control and responsibility. Under the former arrangement good progress was made. It is hoped that with the new scheme, the advance will be still more rapid.

The session opens with a registration in the first year of seventy-three. This is in spite of a higher standard of matriculation and the rejection of a considerable number of applicants. The total registration will be in excess of that of last year which was two hundred and fifty. The faculty has established three teaching Fellowships, one each in anatomy, pathology, and physiology.

In the University of Toronto the opening lecture of the session was given by the professor of obstetrics and gynæcology, Dr. B. P. Watson, who came from Edinburgh in November, 1912, and has already demonstrated his worth. The registration of students closed October 13th, and the following are the results: first year, 136; second year, 101; third year, 118; fourth year, 111; fifth year, 89. The total number is 555, to which may be added 60 occasional or dental students, who take anatomy, making a grand total of 615. There are some 25 more students registered in the full medical course than there were last year.

Of the 555 medical students 51 have taken the combined arts and medical courses of seven years. These have voluntarily taken their B.A. degree in the natural science course. They receive their B.A. after four years at the university, and when they have completed their arts course, they have already fulfilled the requirements of the first two years in medicine and, after three years further study, they may obtain their M.B. The combined course thus makes it necessary for them to spend seven years at the university.

The Medical Research Fellowships which were provided a year ago give promise of excellent work. Good progress has been made and a number of papers will be published at an early date. The senior research fellows are Drs. A. H. Caulfeild, W. Fletcher McPhedran, R. G. Armour. The junior

research fellows are Dr. C. G. Imrie, K. M. B. Simon, and Sharp. The chief feature of the present session is the opening of the new hospital. Already four hundred beds are occupied and there is a daily attendance at the out-patient department of some two hundred patients. Beside the General Hospital is the Children's Hospital with one hundred and fifty beds, and a large out-patient department. These two hospitals, officered by university men, give excellent clinical facilities for students and both hospitals are now in close proximity to the university.

At McGill the session opened on September 30th, with a lecture by Dr. A. C. Geddes, the newly appointed professor of anatomy. Regular lectures were commenced on October 1st. The number of students in the first year is 93, which is about twenty less than last year. The total number in all years is 377. Dr. Shepherd resigned from the chair of anatomy at the close of last session, but he still retains the deanship. The only new appointment to the staff is that of Dr. A. C. Geddes from the Royal College of Surgeons, Dublin, to the Robert Reford chair of anatomy. In the department of physiology, the loss suffered by the death of Dr. Alcock has not yet been made good; but the work is being carried on by his first assistant, Dr. Miller, and the regular staff of the department. The trimester system in the final year, inaugurated last session, has proved a success and will be continued.

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#### ON MEDICAL EDUCATION

**T**HE thoughtful, presidential address of Dr. Herbert J. Hamilton, delivered at the opening session of the Toronto Academy of Medicine, was devoted to the subject of the more recent developments in connexion with medical education. Dr. Hamilton wisely lays stress upon the need for a higher standard of preliminary education, pointing out that the high level of professional training in Germany is rendered possible by the excellence of the education received in the

secondary schools. It is interesting in this connexion to learn that the University of Toronto medical faculty has endorsed the recommendation of President Falconer that "senior" matriculation in Arts be required of intending medical students. Dr. Hamilton, however, passes no judgement upon the recent requirements of many examining boards in the United States, namely, a four year course at a high school and a year's work in the Arts course of a university in physics, chemistry, and biology. For ourselves we adhere to the opinion that these subjects can be better taught, and more economically as regards the student's time, under the control of the medical, rather than of the Arts faculty.

We are glad also to observe that Dr. Hamilton is against what we may term the Harvard principles of specialization during the medical course, and cordially agree with him that "specialization should be based upon a general training in the principles of general medicine." In the debate upon the relative importance of laboratory and clinical training he takes the wise mean of seeking greater mutual coöperation between the clinician and the laboratory worker, and he urges that to a greater extent than at present students have allotted to them individual cases, and be expected to conduct with each full studies, clinical and laboratory, themselves performing the various investigations required. A comparatively small number of cases so treated is immeasurably superior for purposes of training to the abundant performance of routine physical or laboratory examinations.

It is but natural that Dr. Hamilton as a practitioner is strongly opposed to the appointment of university professors of clinical medicine, whose whole time shall be devoted to hospital teaching. We believe in the force of his contention: knowledge of methods of diagnosis on the part of the medical man is not of more importance than knowledge of how to treat patients as individual human beings. If the university professor is to be debarred from coming into close contact with private patients, he must become incapable of imparting

to students the tact and intuition so essential in dealing with a class of individuals which for the general practitioner constitutes "the run of the mine."

While favouring the establishment by government of laboratories for diagnosis and for research, and the financial support of them, Dr. Hamilton cannot bring himself to approve of the recent British legislation, and anticipates the prospect of the eventual establishment of a National Medical Service. Yet a national service does not imply a removal of the privilege on the part of the individual to choose the doctor who shall attend his family and himself. We would point out that at no distant date some three-quarters of the population of Great Britain will probably be bound directly or indirectly, by the provisions of the National Insurance Act. But under that Act most careful provision is made to ensure to the individual the privilege of choice of practitioners.

The rational motive for choosing a doctor is not alone for his skill in treating the patient's ailment: it is for his skill in treating the patient. It is the personality of the doctor, the sympathy that is established between him and the patient that is all important, and it is because of this that the privilege of choice must be retained.

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#### A HAPPY ISSUE

**I**T is satisfactory to learn that the action of Dr. Caulfeild against the National Sanatorium Association at Gravenhurst, to which we referred some months ago in an editorial, has been settled by consent, the defendant association apologizing for the destruction of Dr. Caulfeild's valuable bacteriological material, declaring that it was caused by inadvertence and without their knowledge, professing extreme regret at the destruction, and expressing their appreciation of the work Dr. Caulfeild had done. Dr. Caulfeild on his part acknowledged that as his sympathy was with this charity supported by public funds, he did not feel justified in pressing

his claim for twenty thousand dollars damages, which he had brought against the association. To avoid further litigation the defendants paid to the Court one hundred and sixty dollars, the value of room and board claimed by Dr. Caulfeild. Dr. Caulfeild is to be congratulated upon the happy termination of this most irritating suit in which he has had the sympathy of the whole body of his colleagues throughout Canada. After the treatment he had received, the temptation to press the suit for damages must have been peculiarly strong. The exposure of the treatment meted out to a practitioner in first class standing by a body which depends for its success upon the cordial coöperation of our profession will, we trust, prevent a recurrence of incidents like that which is now thus happily closed.

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#### THE PHYSICIANS' PERIL

**A** PHYSICIAN in his consulting room takes his stand upon good faith. He proceeds upon the assumption that his patient is telling him the truth. His attitude is not that of the lawyer or the detective. It is rather that of the clergyman who is about to hear a confession. He deals with the case as it is presented to him. The physician does not deny that he may be deceived; but the penalty for the deception will fall upon the patient and not upon the physician.

A most distressing and disgraceful violation of the ethics of the profession has occurred in New Brunswick. It is now before the courts, and, therefore, any comment upon the case must be merely in the nature of an enunciation of the general principles which govern the relation between physician and patient.

On August 27th, four physicians in Sussex were made to appear in court to answer to a charge of violating the Canada Temperance Act. On September 10th, all were convicted and fined. An appeal has been taken against the conviction on the ground that the magistrate in convicting decided



against the law and evidence; that under the Canada Temperance Act the physician is the sole judge of whether the alcohol prescribed is for strictly medical purposes; and the accused having sworn that the liquor was prescribed for strictly medical purposes, the information should have been dismissed.

The information was laid by one Anton Gjerde, who, as the prosecution attorney admitted, "was brought here to do detective work." The informer acknowledged that he had previously "worked" in Moncton upon the same business. The evidence of the physicians was very clear. The man stated at one consultation that he had just arrived from Norway, and was suffering from the results of seasickness, and that he was about to leave for the lumber woods. At another consultation he alleged that he had been upon a debauch, and required some stimulant for his depressed condition.

Temperance is an excellent virtue. The whole power of the medical profession is directed towards its enforcement, and this prosecution will not cause zeal to be abated; but practices of this kind will serve to destroy the relation which exists between the physician and his patient. This relation of confidence, however, is solely in the interests of the patient.

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### TYPHOID IN THE WEST

THE problem of sanitation in the West is an extremely difficult one, but the various municipalities are striving with it manfully. Where there is rapid settlement the danger from typhoid is always imminent, and the experience of the West is not peculiar. But in that country there are especial difficulties on account of the configuration of the land and the consequent inadequacy of drainage. The provinces of Alberta and Saskatchewan are traversed, rather than drained, by the Saskatchewan River, which is not a river, in the ordinary sense of the term, but really a canal which draws off the water from the mountains and discharges

it into Hudson Bay. It is not, like rivers in the East, plentifully supplied during its course by streams and rivulets, and the areas along its banks go undrained. And yet the reports of the incidence of typhoid have never been less alarming than they are this year. Two towns in this region, widely separated from each other, may be taken as an illustration, and in both of these typhoid is much less prevalent than ever before.

The report for September of the health officer for Calgary shows a total of 47 cases of typhoid fever during that month as against 165 cases for September, 1912. The number of cases reported was the smallest for five years. The total number of cases of infectious diseases reported during the month was only 89 as against 216 for the corresponding month of last year. Of the 47 cases of typhoid 28 were traced to sources outside of the city, and of the 19 from inside the city the diagnosis was uncertain in some cases. A similar condition prevails in Saskatoon. In the year 1910, there were 104 cases. Last year there were only 82, whilst, for the period from January to September inclusive, of the present year, the cases numbered only 38. In September of the present year, only 16 cases were reported as against 55 for the previous September. Of these at least one-third are credited to sources outside of the city. This state of affairs is especially gratifying, especially at a time when the municipalities are experiencing so much difficulty in providing money for municipal purposes.

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### THE SMALLER HOSPITALS

THE hospitals of Canada are under a strict scrutiny. From all quarters come reports of comment by health officers, committees, and juries. These reports are not entirely favourable, but they cannot be disregarded; on the other hand, there is much praise. The grand jury, at the assize court in Kingston on October 8th, in a report commended "the condition

and management" of the Hôtel Dieu, and the General Hospital. They recommended that these institutions should secure increased grants. Again, a committee from Strathroy visited the Petrolia Hospital on October 6th, to obtain information which might be useful to them in equipping the new hospital at Strathroy, and the deputation expressed the belief that the "Petrolia Hospital fully deserves the enviable reputation which it has throughout the province."

The news from the West is not so encouraging. In the monthly report for September, by the medical health officer of Calgary, the charge is made against the local hospitals that, "nurses who care for typhoid patients often become infected and in a great many cases carry infection from typhoid cases to patients suffering from other diseases, who are receiving treatment in the same wards." In such cases the fault does not always lie with the nurses. The remedy is well indicated by the health officer, that separate wards preferably in a separate building should be established for the reception of patients suffering from typhoid.

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#### CANADIAN PUBLIC HEALTH ASSOCIATION

THE third Congress of the Canadian Public Health Association was held in Regina September 17th-20th. The occasion was one of great scientific value and the meetings were most successful and were well attended. In the various sections, eight in number, a large field of activity was reviewed and commented upon and many interesting addresses were delivered. Mention may be made of those given by Dr. Evans, of Chicago; Drs. McCullough, Bryce, Montizambert, Paget, and Hastings; Miss Mary McDowall, of the University of Chicago settlement; and Dr. Seymour. Mr. R. H. Murray acted as local secretary and is to be congratulated upon the result of his labour. Resolutions were passed requesting that each provincial government provide for the training of supervisors of children's playgrounds in the Normal schools

and in the universities; that the attention of the Federal Government be respectfully requested to the resolution urging the establishment of a Federal Department of Public Health; that in municipalities where no special hospital exists for the treatment of cases of tuberculosis, such cases be admitted to the general hospitals; that the standard laboratory methods of the American Health Association be adopted as the standard of the Canadian Public Health Association; that properly qualified veterinary officers when available should be appointed to act in conjunction with medical health officers in matters relating to veterinary hygiene and food and dairy inspection; and that, whereas the Public Health Acts of the several provinces, and the Medical Practice Acts of the several provinces of the Dominion of Canada vary and differ from one another, and, whereas under the Canada Medical Health Act the medical profession in Canada has been placed upon a rational basis, therefore, be it resolved, that a committee of this association be appointed to coöperate with a committee of the Canadian Medical Association to initiate and forward the revision of the Public Health and Medical Acts of the various Canadian provinces, so as to give a uniform and comprehensive basis for the work of the medical profession in Canada, thus facilitating the formation and operation of the proposed Federal Health Department. Dr. Seymour, of Regina, was elected president of the association for the coming year.

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#### CHARITIES AND CORRECTIONS

**T**HE fourteenth annual conference of Charities and Corrections, which took place in Winnipeg September 15th-17th, was well attended, eight hundred persons being present at some of the meetings. An address given by Mr. Owen R. Lovejoy, of New York, was particularly interesting. In it he gave a warning to Canada, and particularly to Western Canada, concerning child labour. In 1900 it was shown that more than two millions of child labourers were employed in

the United States in work which was detrimental to health. Such a condition can be prevented only through legislation, and during the past few years something has been done to improve matters. Any attempt to introduce similar conditions into Canada should be immediately opposed and children, especially of foreign parentage, given an opportunity to be properly educated. Mr. R. B. Chadwick, superintendent of neglected children for Alberta, considered that the Dominion Juvenile Offenders' Act should be compulsory throughout the country and not in certain places by proclamation, as it now is. Dr. Helen McMurchy, speaking of the feeble-minded, pointed out the necessity of a more thorough inspection of would-be immigrants. Australia now has a system of inspection whereby persons intending to emigrate are carefully examined in Great Britain and on the Continent before they are allowed to commence their journey. Mr. W. M. Leiserson, superintendent of the Industrial Commission of the State of Wisconsin, made some rational suggestions concerning labour exchanges. A more perfect organization of such institutions is essential before they can be of real benefit either to the employee or the employer. "Industrial farms for delinquents" was the subject of an address by Hon. W. J. Hanna, the provincial secretary for Ontario. He described the work done by the prisoners on the prison farm near Guelph, where the men are building permanent buildings which should be finished next February. The men are trusted in every way as far as is considered wise and the results are most satisfactory. Ground has been purchased at Whitby for the same purpose; and at Port Arthur the prisoners are clearing one thousand acres of land.

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In a recent number of *Conservation* it is suggested that milk might be delivered with advantage in red bottles, or bottles with red wrappings, as the violet rays are detrimental to milk while the red are beneficial. Further research along these lines will doubtless prove of interest.



## DISEASE OR SIN

THE text-books upon mental disease are being re-written to conform with the dogma that, "the insane man is a sick man, and requires a sick man's care." This fresh view of insanity demands a revised classification and an altered nomenclature. The practitioner must learn new terms. The juvenile insanities and the delusional lunacies are now classed together as the heboid-paranoia group. These forms are essentially neuropathic in their origin; but allied with them is another group of mental disorders in which neurasthenia as well as neuropathy plays a part. The main symptom of this group is defective inhibition, and it has received from French writers the descriptive term, neurasthenic insanities, or, as Dr. Dercum prefers, the more expressive, though awkward, term, neurasthenic-neuropathic.

More modern still, on the authority of Pierre Janet, is the category "psychasthenias." To sum up the change: In the days of St. Thomas, they called psychasthenia, *pusillanimitas*, and looked upon it as a vice: now we give it a Greek name, and call it a disease. The morbid and the vicious in the same individual are inextricably mixed, and there yet remains the great question: whether is it easier to say, Thy sins be forgiven thee; or to say, Arise, and walk? The mediævalists were not wholly wrong in their view. They had for their guidance that important direction addressed to the man who for thirty-eight years was sick of the palsy; Behold, thou art made whole: sin no more, lest a worse thing come unto thee. The problem was not entirely new even at that time. We have attained to much skill in classification; we have created a semi-scientific jargon to indicate our categories of mental disease. The insane man is a sick man, but he may have been, and be still, a vicious and wicked man. A bad mental habit has its corresponding physical disorder. Cure

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A Clinical Manual of Mental Diseases. By Francis X. Dercum, M.D., Ph.D. Price \$3.00 net. Philadelphia and London: W. B. Saunders Company, 1913. Canadian Agents: The J. F. Hartz Company, Limited, Toronto.

the one, and we help the other. Relieve the disorder, and we go far towards removing the vice. "Fili, in tua infirmitate ne despicias te ipsum; sed ora Dominum, et ipse curabit te," has for its correlative, "Qui delinquit in conspectu ejus qui fecit eum incidet in manus medici."

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THE first number of the official journal of the American Society of Tropical Medicine, *The American Journal of Tropical Diseases and Preventive Medicine*, appeared in July. It is published in New Orleans in connexion with the Tropical School, Tulane University, and is printed by the University Press.

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REPORTS come from places as far away from each other as Quebec and Prince Albert of cases in which the fees charged by physicians for operations performed have been considered exorbitant and appeal to the Courts has been made. In one case where the amount claimed by the physician was one hundred dollars, it is reported that "on the evidence of several other local doctors" the defendant was ordered to pay the sum of fifty dollars. In another case, the amount claimed by the physician was five hundred dollars.

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OVER two thousand years ago the beneficial effects of sun-baths were recognized by Herodotus. Since then many writers have advocated the treatment in tuberculosis of the joints, and, in a recent volume of the *Annals of the Swiss Society of Balneology*, Dr. Rollier, of Leysin, has published the results obtained by him by the sun-bath treatment of surgical tuberculosis. 650 cases—355 adults and 295 children—are reported. Of these 7 only were operated upon. Of 450 "closed" cases, 393 were cured, 41 improved, and 11 unaffected; of 200 "open" cases, 137 were cured, 29 improved, and 14 unaffected. The treatment was continued for from six months to two years, or more.

A SYSTEM of medical inspection of schools and school children is now in force in New South Wales. A chief school medical officer has been appointed and will be assisted by seven medical officers—four men and three women. Their duties are: to medically examine school children, to inspect school buildings, to lecture on hygiene and public health to the teachers, to examine candidates for entrance to the teaching profession, to examine teachers who are incapacitated for work by sickness, to investigate outbreaks of infectious disease, to lecture to the senior girls on the care of infants, personal hygiene, and hygiene in the home.

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To commemorate the royal visit to India, the King George V. Antituberculosis League has been organized in Bombay. The objects of the league are: the notification of disease; the establishment of tuberculosis dispensaries; the education of the people; the medical inspection of school children; the supervision of milk and food supplies; the establishment of a special fund to relieve distress; and to arouse public interest in tuberculosis. A central dispensary and a laboratory have been established, and it is the intention to open several others in Bombay, and in other municipal centres. The undertaking is a commendable one and if the league is given adequate financial support by the citizens, it should bring forth excellent results.

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SEVENTY-SIX candidates entered for the examinations of the Dominion Medical Council of Canada, which were held at Montreal, October 10th. The oral and written tests were conducted in the new medical building of McGill University, the clinical portions of the examinations took place in the four hospitals—the Royal Victoria, the General, Notre Dame, and the Hôtel Dieu.

A good many practitioners have availed themselves already of the provision of the Roddick Bill, whereby a practi-

tioner who holds a provincial certificate, and who has practised for ten years or more is entitled to Dominion registration. The Dominion licence will prove particularly helpful to those physicians who live near the border of a province and who, without it, would be unable to give medical assistance to a patient residing possibly a very short distance away, but in a neighbouring province.

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THE first Convocation of the American College of Surgeons will take place in Chicago, on the evening of the thirteenth instant, when fellowship will be conferred on all members who have become duly qualified. Certain honorary fellowships also will be conferred on this occasion. The principal address will be delivered by Sir Rickman Godlee, the president of the Royal College of Surgeons of England. The presidential address will be given by Dr. J. M. T. Finney.

About thirteen hundred applications for membership have been received by the secretary, but of these only one thousand have filed their applications in conformity with the requirements of the college. About four hundred applications were approved by the Board of Regents at the Minneapolis meeting, and an additional three hundred have been favourably passed upon by the general committee on credentials.

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THE government of Alberta has before the legislature, now in session, an amendment to the Medical Act, which, it is hoped, will induce physicians to locate in the more thinly settled parts of the province. According to this amendment any medical man entering the province whose diplomas give him the right to apply for examination by the medical faculty of the University of Alberta, will be granted an interim license to practise medicine, providing he is prepared to locate twenty miles away from any licensed practitioner. When the next examinations are held, if he should fail in some of the subjects his license will be extended for six months in order to give him time to prepare in the other subjects.

THE new medical building of McGill University, with its splendid equipment for teaching, has been the theatre of an interesting and historic occasion; one which will not fail to impress any one who has been observant of the trend of events in medical politics in Canada for the past quarter of a century. It has been no light task to weld together the forces of Canada's great provinces, to combine east with west and west with east, and thus create one Council of Medicine. It must have been particularly gratifying to Dr. Roddick to have witnessed the final result of the long labour he has accorded. The first examinations for registration under the Canada Medical Act concluded, after a ten days' session, on the evening of October 17th. They were conducted in the English and French languages by twenty-eight examiners, chosen by the Medical Council of Canada at its last meeting at Ottawa in June, 1913. In anatomy the examiners were Dr. L. D. Mignault, Montreal; Dr. H. Williams, London; Dr. J. A. Henderson, Montreal; Dr. E. Couillard, Quebec. In physiology, they were Dr. T. G. Brodie, Toronto; Dr. E. Mathieu, Quebec; Dr. A. P. Knight, Kingston; Dr. E. Asselin, Montreal. In hygiene and state medicine, Dr. C. Valin, Montreal; Dr. T. Starky, Montreal; Dr. R. Fortin, Quebec; Dr. H. W. Hill, London. In pathology and bacteriology, Dr. J. G. Adami; Dr. Vallée, Quebec; Dr. D. Graham, Toronto; Dr. E. Latreille, Montreal. In obstetrics and gynaecology, Dr. L. de L. Harwood, Montreal; Dr. R. W. Garrett, Kingston; Dr. S. Grondin, Quebec; Dr. R. Ferguson, London. In medicine, including therapeutics, Dr. W. Goldie, Toronto; Dr. Rose-seau, Quebec; Dr. W. F. Hamilton, Montreal; Dr. E. P. Benoit, Montreal. In surgery, Dr. A. Marion, Montreal; Dr. J. M. Elder, Montreal; Dr. A. Paquet, Quebec; Dr. J. Halpenny, Winnipeg.

The written and oral examinations were held in the medical building and the clinics in the four large hospitals,—the Royal Victoria, the General, the Notre Dame, and the Hôtel-Dieu. The candidates were seventy-one in number,



fourteen French-speaking and fifty-seven English-speaking. Dr. R. W. Powell, of Ottawa, the registrar, is to be congratulated upon the harmony which prevailed throughout the examinations, and which was due in large part to his assiduity and earnest effort.

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FORTY-FOUR candidates were successful, eight were referred back to the council, having failed in not more than two subjects, and nineteen were rejected. Following is a list of the successful candidates: L. A. Aubin, Rawdon, Que.; I. F. Belanger, Quebec; I. A. Bergeron, St. Antoine de Tilly, Que.; C. R. Bourne, Montreal; C. E. Brown, London, Ontario; I. Cumming, Ottawa; A. P. Davies, Hull; A. S. Duncan, London, Ontario; J. B. Gallagher, Bath, N.B.; J. F. Grant, Montreal; E. H. Gray, Montreal; W. J. Hepburn, Montreal; L. G. Houle, Bras d'Apic, Que.; W. G. Hutton, J. J. Irvén, J. A. H. Joyal, R. F. Kelso, Montreal; J. H. G. Lacasse, St. Genevieve de Pierrefonds, Que.; J. L. Lamy, St. Flore, Que.; A. Leger, Montreal; A. F. Macaulay, London, Ontario; F. H. Mackay, Montreal; I. F. MacKnight, Tamworth, Ontario; L. W. MacNutt, Ottawa; A. A. Martin, Pierce, Neb.; A. J. McCalla, St. Catharines, Ontario; W. G. Morris, Vancouver; R. L. Morrison, Barrie, Ontario; P. Nase, Verdun, Que.; J. G. Phillips, Labelle, Que.; W. S. Pickup, Fort William; J. L. Poirien, Craigmont, Ontario; L. K. Poyntz, Tavistock, Ontario; A. L. Raymond, Williamstown, Ontario; A. Stewart, Ottawa; J. W. Sutherland, F. S. Swaine, Montreal; A. T. Turner, Bowden, Alta.; E. J. O. Wolcott, Montreal; L. W. Walker, Hanover, Ontario; J. T. Wanall, Kansas City, Mo.; W. G. Wallace, Metcalfe, Ontario; H. C. Workman, Kingston, Ontario.

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THE physician who occupies an official position is in a different category from him who is enjoyed in private practice. He exercises a dual function and shares with other public servants responsibility to the public for his conduct.

He lives less to himself than the practitioner, and is obliged to keep even a stricter watch upon his habits and conduct. In one district of British Columbia, so we are informed by a newspaper of October 4th, a grand jury made the matter a subject of reference in the ominous words: "It has been brought to our attention that some of the medical men resident within this country and in receipt of government monies as health officers, have, through their addiction to drink or drugs, at times been quite incapable of fulfilling their duties. This condition of affairs is within the personal knowledge of some of the jury. We feel sure that such a state of affairs only needs to be called to the attention of the medical association and the government to be at once rectified."

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THE *Armstrong Advertiser* is in favour of providing doctors with distinctive badges which would ensure for them special privileges. The proposal is that doctors who employ motor cars should display this badge, and so secure immunity against infringement of municipal by-laws regulating the public traffic. It would appear that such a privilege was sought in Toronto, and was refused, but that the Detroit Medical Association succeeded in impressing upon the authorities of that city the necessity of such a badge for doctors, with the result that every member of the association carries a badge on the radiator of his car. Doctors will do best who seek the fewest privileges, and leave to the common sense of the community the passing of judgement upon their conduct in daily life as well as in emergencies.

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Students of medicine suffer many things at this season of the year, and we would not willingly add to their burden. We cannot refrain, however, from setting forth some words of precious advice, which were furnished by Jacob Laurenz Sonderegger to a friend who enquired of him, having the design to enter his son upon the profession. This Dr. Son-

deregger was a Swiss physician, of St. Gallen, who was born in 1826, and died some fifteen years ago. The translation is done by Dr. Arnold Klebs, and reached us through a friend of all students. The words are: There is nothing greater or more beautiful on earth than man; he is the most difficult and most lofty object of thought and action. His existence and aims, his life and suffering, all are curious and touching in the highest degree. Bright eyes and fine ears you have to apply, a great talent of observation and patience and again patience for endless learning; a clear, critical head with an iron will, that in need is hardened, and yet a warm movable heart, which understands each pain and sympathizes; a religious hold and moral earnestness, besides this a decent exterior, manners in company and agility in one's fingers, health of body and soul—all this you must have, if you do not wish to be a bad or an unhappy physician. You must bear like a camel the weight of multiple knowledge and preserve the freshness of the poet; you must out-play all the arts of charlatanism and still remain an honest man; medicine must be (and everything depends on this) your religion and your politics, your fortune and misfortune. Therefore do not advise anyone to become a physician. If he still wants to become one, warn him against it, repeatedly and earnestly; if none the less he persists, then give him your blessing, if it is worth anything; he will have need of it.

### Book Reviews

**ANATOMY, DESCRIPTIVE AND APPLIED.** By HENRY GRAY, F.R.S.  
A new American edition, thoroughly revised and reëdited, by  
EDWARD ANTHONY SPITZKA, M.D. Illustrated with 1,225  
engravings. Philadelphia and New York: Lea & Febiger,  
1913.

Gray's "Anatomy" was published for the first time in August, 1858, fifty-five years ago. The present reviewer studied anatomy from the eighth American edition, published in Philadelphia in 1878, by Henry C. Lea. A comparison of this new edition with that ancient book emphasizes the excellence of the old as well as the excellence of the new. The improvement has come by way of evolution, and not through a change in plan, and the book remains as an enduring monument to Henry Gray. For purposes of the medical student it has no rival. The appearance of a new edition does not destroy the value of the former one, but the student will be glad to have the latest edition of a book which will last him a lifetime, and may be mentioned in his will as a valuable possession.

**SCIATICA: A FRESH STUDY.** By WILLIAM BRUCE, M.A., LL.D.,  
M.D. With notes of nearly 700 cases; illustrated. Price,  
5s. net. London: Baillière, Tindall & Cox, 1913.

The conclusion to which Dr. Bruce's fresh study of sciatica leads him is that the set of symptoms known as "sciatica" are the result of reflex irritation originating from troubles in the hip-joint. The common view, of course, is that sciatica is primarily a neuritis. In an appendix he gives notes of six hundred and ninety-one cases to substantiate his conclusion.

**NEW ASPECTS OF DIABETES: PATHOLOGY AND TREATMENT.** By  
PROFESSOR DR. CARL VON NOORDEN, of Vienna. Price,  
\$1.50. New York: E. B. Treat & Company, 1912.

The home of the scientific diatetics is certainly in Continental Europe, and Professor von Noorden for more than twenty years has been associated with the progress of the theoretical and applied knowledge of metabolism. Last year he was induced to come to

New York to deliver a course of lectures before the New York post-graduate medical school. These lectures, which were delivered in October, 1912, are contained in this book. It bears the title of "New Aspects of Diabetes," because about eight years ago the same author published a somewhat similar book upon this subject. On this occasion various new aspects of the malady are presented, but it must be confessed that there is nothing very new or encouraging in the treatment. The author has made it clear, however, that these cases must be approached by the long established paths. Dealing with the claims of those vendors who label their compounds as specific factors and as new discoveries in the therapy of the disease, Professor von Noorden says: "We must not go so far as to say that the whole matter always is a deliberate fraud; most frequently it is an error of judgement arising from the fact that the vendors of these specialties have not had a training sufficiently scientific to enable them to discriminate between cause and effect."

**MINOR AND OPERATIVE SURGERY INCLUDING BANDAGING.** By HENRY R. WHARTON, M.D. Eighth edition, enlarged and revised, with 570 illustrations. Price, \$3.00 net. Philadelphia and New York: Lea & Febiger, 1913.

With the opening of the medical schools the wants of the students are not forgotten, and the season is especially rich in new editions of standard text-books. This English edition of "Wharton's Minor Surgery" is one of this class, a new edition of a standard book.

**MALARIA: ETIOLOGY, PATHOLOGY, DIAGNOSIS, PROPHYLAXIS, AND TREATMENT.** By GRAHAM E. HENSON, M.D. With an introduction by CHARLES C. BASS, M.D. Illustrated. Price, \$2.50 net. St. Louis: C. V. Mosby Company, 1913.

This book on malaria comes from Jacksonville in Florida. The author in his preface expresses the belief that one of the most sacred duties the general practitioner in malarial regions owes to the community in which he lives, is his assistance in the eradication of malaria. This book is a valuable contribution towards that end. It contains all that is known upon the subject, and is rich in historical reference. In the region from which the book comes there is a large field for its usefulness, and Dr. Henson deserves the thanks of his fellow practitioners.



**HANDBOOK OF PHYSIOLOGY.** By W. D. HALLIBURTON, M.D., LL.D., F.R.C.P., F.R.S. Eleventh edition. Illustrated. Price, \$3.00 net. Philadelphia: P. Blakiston's Son & Company, 1913.

Students will like to know that a new edition of "Halliburton's Physiology" has been issued. An older generation will remember "Kirke's Physiology," out of which this work has arisen. The present edition is in reality the eleventh of "Halliburton." There is much that is new in this book, so much, indeed, that it is quite as modern as any of its competitors for the student's favour. The book is not increased and the price remains the same. The quality is as it has always been—of the best.

**DIAGNOSIS OF THE MALIGNANT TUMOURS OF THE ABDOMINAL VISCERA.** By PROFESSOR RUDOLPH SCHMIDT. Authorized English version by JOSEPH BURKE, Sc.D., M.D. Price, \$4.00. New York: Rebman Company, 1913.

This is a book which ought to be in the hands of every serious practitioner of medicine. The more general his practice the more necessary is the information which it contains, since it is upon him the task of diagnosing malignant tumours first falls. To emphasize the importance of the book we cannot do better than reproduce the solemn words of the preface: "The diagnosis of a malignant new growth ranks among the most important decision in the domain of abdominal disease. Depending on the stage of the disease, it may mean a saving of life, or it may mean a death sentence. It behooves the physician to avoid, as far as possible, the reproach of not having recognized in time the malignant nature of the disease, making a life-saving operation impossible; but, on the other hand, the patient should not be subjected to unnecessary alarm and a useless operation through an erroneous assumption of a malignant process. To choose the right path between these two extremes of possible error belongs to the most difficult problems of internal medicine."

**MANUAL OF OPERATIVE SURGERY.** By J. F. BINNIE, A.M., C.M. (Aberdeen). Sixth edition, revised and enlarged, with 1,438 illustrations. Price, \$7.00 net. Philadelphia: P. Blakiston's Son and Company, 1913.

During the past five years there has been a remarkable development of surgery in the central States of the American Union.

This development has been accompanied by progress in medical education and the issue of text-books. From St. Louis and Kansas City admirable works on medicine are given out. This book by Dr. Binnie is one of these. It is now in the sixth edition after being before the profession for only nine years. The note of this book is that most attention is given to the more difficult and uncommon operations. It is assumed that the surgeon is already familiar with the generally recognized procedures. It may be added that Professor Binnie received his training in Aberdeen.

A TREATISE ON THE DISEASES OF WOMEN. FOR STUDENTS AND PRACTITIONERS. By PALMER FINDLEY, B.S., M.D. Octavo 954 pages, illustrated with 632 engravings in the text and 38 plates in colours and monochrome. Cloth, \$6.00 net. Lea & Febiger, Philadelphia and New York, 1913.

As we have remarked on many occasions, the domain of medicine in the United States is moving gradually westward. Surgery and medicine is now being done in the larger cities of the middle west to an extent that was undreamed of ten years ago. There are well equipped schools, large clinics, and in their wake the appearance of text-books. This newest book comes from Omaha, and the author is professor of the subject in the State University of Nebraska. It is dedicated by the author to his former chief, Dr. J. Clarence Webster, which in itself is an indication of youth in this medical life, as it is not so many years since Dr. Webster left McGill for Chicago. When a new book appears one turns to the preface with alacrity to discover what are the grounds for the incursion of a new writer into an already crowded field. But this book is not entirely new. It is the outcome of the author's "Diagnosis of Diseases of Women," and now appears as a complete text-book on the subject. We should say that the characteristic of the book is that, the non-operative methods of treatment of these diseases receive more consideration than commonly falls to their share. In all respects it is a complete text-book, elaborately, and even beautifully illustrated, excellently printed, and issued from the house of a first rate publisher. This book is likely to repay in a measure the large debt which the West owes to the East.

**THE PRINCIPLES AND PRACTICE OF GYNECOLOGY. FOR STUDENTS AND PRACTITIONERS.** By E. C. DUDLEY, A.M., M.D. Sixth edition, thoroughly revised. Octavo, 795 pages, with 439 illustrations, of which many are in colours, and 24 full-page plates. Cloth, \$5.00 net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

For this, the sixth edition, Dr. Dudley has subjected the greater part of his book, paragraph by paragraph, as he tells us in the preface, to a regional and interstitial dissection. He has re-written many chapters, but by a process of re-arrangement and condensation he has found space for much new matter without enlarging the volume. The book is beautifully printed—as it always was—as all of Messrs. Lea & Febiger's publications are. It fulfils every need of the student and practitioner, and will be found of great value to the specialist as well.

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### Books Received

The following books have been received and the courtesy of the publishers in sending them is duly acknowledged. Reviews will be made from time to time of books selected from those which have been received.

**PRACTICAL BACTERIOLOGY, BLOOD WORK AND ANIMAL PARASITOLOGY, INCLUDING BACTERIOLOGICAL KEYS, ZOOLOGICAL TABLES, AND EXPLANATORY CLINICAL NOTES.** By E. R. STRITT, A.B., Ph.G., M.D. Third edition, revised and enlarged; illustrated. Price, \$1.50 net. Philadelphia: P. Blakiston's Son & Company, 1913.

**ANATOMY, DESCRIPTIVE AND APPLIED.** By HENRY GRAY, F.R.S. A new American edition, thoroughly revised and reëdited by E. A. SPITZKA, M.D. Illustrated with 1,225 engravings. Philadelphia and New York: Lea and Febiger, 1913.

**A MANUAL OF OTOLOGY.** By GORHAM BACON, A.M., M.D. Sixth edition, thoroughly revised. Price, cloth, \$2.25 net. Philadelphia and New York: Lea & Febiger, 1913.

MINOR AND OPERATIVE SURGERY INCLUDING BANDAGING. By HENRY R. WHARTON, M.D. Eighth edition, enlarged and revised, with 570 illustrations. Price, \$3.00 net. Philadelphia and New York: Lea & Febiger, 1913.

THE DOCTOR IN COURT. By EDWIN VALENTINE MITCHELL, LL.B. Price, \$1.00. New York: Rebman Company, 1913.

SCIATICA: A FRESH STUDY. By WILLIAM BRUCE, M.A., LL.D., M.D. With notes of nearly 700 cases. Illustrated. Price, 5s. net. London: Baillière, Tindall & Cox, 1913.

THE PROTEIN SPLIT PRODUCTS IN RELATION TO IMMUNITY AND DISEASE. By V. C. VAUGHAN, M.D., LL.D., V. C. VAUGHAN, JR., M.D., A.B. AND J. W. VAUGHAN, M.D., A.B. Illustrated. Price, cloth, \$3.00 net. Philadelphia and New York; Lea & Febiger, 1913.

THE PRINCIPLES AND PRACTICE OF GYNECOLOGY. FOR STUDENTS AND PRACTITIONERS. By E. C. DUDLEY, A.M., M.D. Sixth edition, thoroughly revised. Illustrated. Price, \$5.00 net. Philadelphia and New York: Lea & Febiger, 1913.

A TREATISE ON THE DISEASES OF WOMEN. FOR STUDENTS AND PRACTITIONERS. By PALMER FINDLEY, B.S., M.D. Illustrated. Price, \$6.00 net. Philadelphia and New York: Lea & Febiger, 1913.

DIAGNOSIS OF THE MALIGNANT TUMOURS OF THE ABDOMINAL VISCERA. By PROFESSOR RUDOLPH SCHMIDT. Authorized English version by JOSEPH BURKE, Sc.D., M.D. Price, \$4.00 New York: Rebman Company, 1913.

## Res Judicata

## VETERINARY EDUCATION

**H**ISTORY does not record in detail the early progress made in the study of diseases of animals, nor the means taken to combat or prevent their recurrence. We are aware, however, that something over two thousand years prior to the Christian era great stress was laid on the proper feeding of animals that were desired for work. These rules for feeding do not materially vary from what would be considered proper to-day. At this early period, "a doctor of oxen and asses" was accorded a legal fee as was his *confrere* who treated the ills to which human flesh is heir, and there was always a penalty in the event of his being unable to perform a cure. This penalty, however, was less severe than that prescribed for failure in the treatment of the human being.

To Columella,\* a veterinary surgeon who lived during the first century of the Christian era, belongs the credit of insisting that hygienic surroundings, isolation and proper food were necessary adjuncts in dealing with sick animals. This it seems is prior to any reference to a similar procedure for the control of diseases among human beings.

The Hippiatrica† is preserved to us through the foresight of Constantine‡ and "reproduces the written opinion and views of the experts of the Eastern Roman Empire, the birthplace of the veterinary art or certainly of veterinary literature, and it is because it represents what men in our profession fifteen centuries ago thought on subjects which are engaging our attention to-day that their work becomes of such interest and value." This work, however, does not now exist in its original form but copies are available for reference. The data included in the manuscripts which have been

\* "The Early History of Veterinary Literature and its British Development." Major General F. Smith, C.B., C.M.G., F.R.C.V.S. (*Jour. Comp. Path. and Therap.*, Vol. XXVI, 1913.) L. J. Columella in his writings dealt exhaustively with the care, management, breeding and feeding of domestic animals. He was the first to point out the necessity for the isolation of affected animals when contagious disease appeared.

† *Ibid.* The compiler of the Hippiatrica is unknown, but it consists of a summary of the writings of the authorities in veterinary science up to that time.

‡ *Ibid.* Constantine the Seventh, Emperor of the later Roman Empire, with the designation, "Porphyrogenitus," (born in the purple), lived from 911 to 959 A.D.

preserved indicate that these copies do not agree in all particulars, doubtless the result of the work of copying being undertaken at different periods by several individuals, each of whom, either by design or unintentionally, made changes in the transposing of the text. The copying at this early time was necessarily performed by hand and naturally lent itself to many errors, some of which though minor in themselves materially changed the purport of the author. The writings of the early veterinarians which have thus survived the vicissitudes of time and are now available in a very imperfect form, indicate that the views then held on many ailments were not widely different from those obtaining in this enlightened age. The authors of the Byzantine period contributed much to the knowledge of the science, and it seems that veterinarians were then familiar with many of the contagious diseases of animals, although their knowledge was founded on a less sound scientific basis than is ours to-day. That these men were esteemed, is evidenced by the positions of trust which they held and the confidence with which their teachings were accepted. After Constantine, a considerable time elapsed during which it is evident that many of the writings were lost, and in addition this territory was invaded by the Mohammedans who carried such veterinary teachings as were found to Arabia, and, thanks to the employment of translators, usually learned Jews, such of the writings as were available were translated from the Greek into the Arabic and thus preserved. To similar translators we are indebted for the subsequent translation from the Arabic into the modern languages. This transposition is in a large measure responsible for the existence of the earlier works to-day, as very few are now available in the language in which they were originally written.

Notwithstanding these early historical data, we must look to the advances during our own time with a view of ascertaining whether we are doing our utmost to advance the art and science of veterinary medicine, for history is indelibly recording the results of our efforts for others to read, after we as individuals have ceased to worry over ideals, and when collectively we will be but a memory, known only by the writings of those who have been foremost in raising the educational standards of our calling.

From time to time the art and science of dealing with the diseases of animals has progressed; nevertheless, many were the occult devices employed to overcome disorders which now yield to very simple medication. By these occult devices, great cures were claimed; and then as to-day the public were as ready and eager to follow any self-styled healer who catered to the frailties of



human nature either by ministering to their personal indisposition or to the illnesses of their live stock, for in many instances the health of the live stock was then as now more important than the health of members of their own families. Such practices have been responsible for the existence of empirics and charlatans, and who may say that their exploitation of the public has not been for the general uplift and improvement of educational methods? Who would dare, in the light of our present knowledge and the practices of to-day, to say that Paracelsus did not exert an important influence in stimulating those interested in the practice of human medicine to eliminate much of the mystery which then surrounded this art? He simplified many of the methods of dealing with disease, although it is generally admitted that he was an empiric. The existence of empirics and charlatans in the veterinary medicine of our day has exerted a very important stimulus toward the improvement of the courses given by veterinary colleges. Some veterinarians are continually waging war with a view to securing the elimination of empirics by legislative enactment, and this I believe to be a step in the right direction. A few are exceedingly jealous of the standing and success of the self-educated empiric, but I may state that the trained veterinarian who is unable to successfully practice his profession in the face of such empirical opposition has either entered the professional ranks improperly equipped, or else he has endeavoured to engage in a science for which he is by temperament and training wholly unfitted. We have passed the era when superstition reigned supreme and are now enjoying the fruits of a higher civilization than the world has ever known, expressed by the increased facilities granted for all forms of educational advancement. Veterinary science is coming to the fore, and ere long will assume the importance which the increasing value of live stock will demand.

Outstanding men appear from time to time who are courageous, yet sufficiently optimistic, to faithfully trust in the ultimate success of their efforts. Such men may bend their energies to the finding of a new land, the colonizing of an arid waste, the cultivation of the hitherto unknown, the discovery of new scientific facts, the practical application of existing knowledge, or they may stimulate others to a desire for familiarity with subjects formerly considered of little importance. All of such are pioneers and may prove martyrs, yes, heroes, to the cause of their choice, and time will emblazon their names in the eyes of future generations as indelibly as those of any hero of mortal conflict. Following the pioneers, there is usually a period of recrudescence, during which the real

development takes place, and among the men who accomplish this development are staunch men of the pioneer type. These men under other circumstances and environment would doubtless be pioneers, and yet who may say that their efforts in building upon a solid foundation are not the equal of the true pioneers though less spectacular?

Veterinary education, commencing as it did at a very early period from our standpoint, possessed its pioneers whose names are more or less familiar to us all. Others have endeavoured to complete the tasks which they commenced, in some cases under very arduous circumstances, and the little advancement made has been comparatively recent. But few men were concerned with this advance in North America, and most of them have gone beyond, yet those still with us are respected among their professional *confreres* and by others who have enjoyed their acquaintance.

We, in Canada, are most intimately concerned with the status of veterinary education within our own borders, as we are more vitally affected by conditions which reflect upon our own energies, than by circumstances which have but a remote bearing on our well being. With this reflection we must carefully consider what the great universities of this land are doing for veterinary education, and determine whether or not they are living up to the traditions of the individual institutions in other phases of advancement. We can justly lay claim to the first institution which considered it necessary to extend the course of study from two to three years, at a time when other colleges believed two years sufficient in which to give an adequate training. This one act on the part of the far-sighted dean of the School of Comparative Medicine and Veterinary Science of McGill University, Dr. D. McEachran, has borne fruit, and there is not now a recognized school on this continent or elsewhere which considers less than three years adequate, in fact, a great many colleges whose courses now extend over four years are considering the advisability of adding another year to their curricula. Such is the trend of modern thought along all educational lines, and to those who are assisting in the maintaining of lowered standards in any of the veterinary colleges, there should be extended the severest condemnation from their colleagues.

We cannot go farther without mentioning the name of Professor James Law, so long connected with Cornell University, who successfully placed veterinary science in New York State, from a legislative and educational standpoint, on an equal footing with human medicine, at a time when schools within that state were

not equipped to meet the high standards demanded by legislative enactment. This advance has stimulated other states in the Union to an increased effort, and the federal government, through its Bureau of Animal Industry, indicates those institutions whose curricula are such that they may be expected to develop men suitable for service in the special work of the Bureau. Canada is forging ahead, and the examination required for entry into the Health of Animals Meat Inspection Service, is a step in the right direction, but the progress is slow and the schools are not provided with sufficient funds to meet the demands of present day educational requirements.

As a profession, and I believe that trained veterinarians are professional men of the highest order, a greater amount of time is demanded in the study of its many branches than is required for proficiency in any other line of endeavour. That there has been a tendency on the part of some of those financially interested in the exploitation of veterinary education to consider it as a trade rather than a profession, we are, perforce, compelled to admit. This tendency, however, has practically disappeared and the institutions now engaged in educating veterinarians are strengthening all phases of their curricula. As to the exact requirements and special training which may be insisted upon, there is naturally some difference of opinion. Each teacher considers his subject the fundamental one for the laying of a proper foundation; were it otherwise, the natural enthusiasm which should always exist would be wanting, and the details would be imparted in such a half-hearted manner that a student could scarcely eliminate the unimportant from the important features. If it were feasible, I would suggest that all desiring to perfect themselves as veterinarians should first take the prescribed curriculum in any of our leading agricultural colleges, after which they would be able to absorb the many intricate details in chemistry, physiology, anatomy, pathology, and other subjects which vary with each species of animal that a trained veterinarian may at any time be called upon to treat. While such a scheme may be impracticable for immediate application, I am of the opinion that the greater portion of the agricultural college training connected with the feeding and breeding of live stock should be included in the curriculum. This with a training similar to that now given in human medicine at our leading universities, using the horse as a type instead of the human being, and supplementing such instruction by the inclusion of special features connected with the various species of animals, so as to ensure a complete familiarity with the

most pronounced peculiarities of each, would materially assist in thoroughly grounding those electing to become proficient in this art and science. After submitting to such an apprenticeship, the individual graduate would feel capable of successfully dealing with many disorders which now puzzle all but the most experienced. His powers of discernment and intuition would be so developed that the greatest barrier to success, that of proper diagnosis, would largely be removed through his being conversant with the idiosyncracies common to each species of animal. In opposition to the above outline it may be argued that these requirements are being fulfilled to-day, but if this is so there are few schools which are meeting them in their broadest conception, and the highest practical development possible will not elevate in an excessive degree one who must be as versatile in his proficiency as the veterinarian should be.

Many are unaware that a veterinarian may, in an ordinary day's routine, be called upon to treat,—a hog, whose anatomical and physiological functions are very similar to those of man; a cow, with a very complicated digestive apparatus, requiring four stomachs and the usual complemental intestinal arrangements for the full performance of its functions; a horse, with yet another type of digestive system; a dog, whose digestive organs will readily assimilate bones and the innumerable ptomaines found in decaying meat; yet this is but a small list, for one might go on indefinitely detailing innumerable animals, including birds, which may be maintained as commercial assets, fancy stock or household pets. It may be pertinent to remark that the newly created fox industry, or the commercialization of foxes for their fur, is presenting problems of more than ordinary concern, if the final result of the experiment is to be a success from the financial standpoint. The turkey industry on this continent has been seriously menaced with extinction for the past twenty years by an infectious disease, and science has offered little to relieve the ravages thus occasioned. Fully trained men are required to deal with these and many other problems equally important. These references are extraordinary, but indicate certain ramifications of the science which must be provided for in the education of the modern veterinarian.

In view of the versatility demanded of the trained veterinarian, is it reasonable to expect that an ordinary mortal can in three or four years, assimilate even sufficient basic knowledge for dealing with all or even a portion of these animals, when it requires five years in our best universities to perfect one's self in the art of min-

istering to the ills associated with the human species? Again, not only are we confronted with the variations which I have very superficially enumerated without specific detail, but we have variations in the action of drugs, a different series of contagious diseases, some of which may be intercommunicable among all or a few species, and last but not least, as a diagnostician, the trained veterinarian must determine the location of a disorder, not by interrogating the patient as is the case in human medicine, but by properly directed observation and elimination.

It was Hierocles,\* who, at the latter end of the fourth or the beginning of the fifth century, indicated the difficulty of diagnosis in the following words,—“In men there is an inborn faculty of speech by which they can express what is troubling them, nevertheless those skilled in the healing art consider the observation of symptoms necessary. How much more needful, then, must it be in veterinary practice to observe these symptoms of disease recognized as such by our traditional art in animals which are dumb by nature.” In fact, there is practically no guide save the knowledge which is secured by the closest application, assisted by intuition, and accompanied by a natural aptitude for the work in hand.

From an environmental standpoint we are a meat-eating nation. We are not producing all that we consume in meat, meat food, and animal products, yet we have one of the largest areas of fertile lands on the globe. The total value of live stock in Canada approximates seven hundred millions of dollars.† Basing the yearly loss at five per cent., which is a very conservative estimate, due to preventable causes, there is an economic loss to the country of thirty-seven million dollars per year. The cost to the country of the Health of Animals Service, whose duty it is to protect the animals of Canada from the spread of contagious diseases within its borders and the

\* *Ibid.* Hierocles is by some considered a lawyer, but his writings show that he was conversant, with a more than ordinary intimacy, with the veterinary art as it existed in his day, and in a manner which could be secured only by actual contact and practice with animals. Two books written by him were five hundred years later the basis of a work which was intended to perpetuate for all time the practice of the Byzantine veterinarians. The wording of the final sentence quoted indicates that the art of veterinary medicine had then been known for a long time.

† The Superintendent of Compilation of the 1911 Census, Mr. E. S. Macphail, has supplied figures from which the following values have been estimated: Horses \$426,903,930; milch cows, \$123,362,225; other cattle, \$76,228,020; sheep, \$14,510,400; swine, \$24,914,714. The total figures for poultry are not available but are estimated at \$15,000,000. British Columbia figures are not available and are estimated at \$61,591,761. The total from these figures is \$742,511,050.



prevention of their entry from without, is but three hundred and twenty-five thousand dollars or considerably less than one per cent.

With this vast investment, it is apparent that the time is ripe for properly safeguarding this great live stock industry which is one of the principal assets of our country. Probably the best means of safeguarding this great interest is to see that adequate provision is made for the suitable training of such material as may present itself at the existing veterinary colleges. This raw material must first be equipped with the basic education necessary for the proper assimilation of such facts as may be presented in the purely technical studies required. Without such a foundation, the superstructure cannot be raised with a reasonable assurance that the individual will be capable of coping with the many problems presented to him after he has graduated.

Sufficient schools of a proper standard are not now available in Canada, therefore, we may ask, are our universities unequal to the task which is at their door? Other departments are being generously endowed and equipped, yet one of the most important phases of higher education is being silently ignored or overlooked.

CHARLES H. HIGGINS.

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A MEETING of the Winnipeg Trades and Labour Council was held September 18th, on which occasion a resolution was passed requesting the establishment of a municipal hospital, and suggesting that the city council should take advantage of an offer which the General Hospital Board is reported to have made, to place the management of the hospital in the hands of the municipal authorities.



## German Literature

## ABSTRACTS OF GERMAN LITERATURE

RUPTURE OF THE UTERUS AFTER PITUGLANDOL. BY DR. GERMANUS ESPEUT, *Muenchener Medizinische Wochenschrift*, No. 32.

AS a contribution towards the literature of hypophysis extract as a means of stimulating labour pains, perhaps the following instance observed by us may be of interest.

At five o'clock in the morning of January 16th, there was brought to the hospital a pregnant woman of thirty-four years of age, who had already had seven normal deliveries. According to the story of the midwife who accompanied her, the pains had started that evening at about eleven o'clock, and at one o'clock the membranes had ruptured. When meconium began to escape from the vulva, and the foetal heart could no longer be heard, the midwife sent for a doctor, and being unable to procure one brought the patient to the hospital.

On her admission at five a.m. the condition was as follows: Gravid uterus of a size indicating full term; pelvis somewhat contracted, (conjuta vera 10 cm.); occiput presenting and the head fast in the pelvic inlet; cervix dilated; passage of meconium; foetal heart very weak. The pains were not strong and occurred every ten minutes. General condition of mother good.

Since the child was plainly in danger, and operative procedure did not seem indicated, a hypodermic injection of pituglandol was given at five thirty o'clock to strengthen the pains; and when the pains did not increase, and labour had not advanced after one and a half hours, the dose was repeated. In about five minutes after the second injection violent and very painful pains occurred. The patient was very restless and excited; suddenly cried out, "I am so ill, I shall die," became pale and a cold sweat broke out over the forehead. The pulse was very rapid and hardly palpable. The uterus was much altered in shape, the fundus being on one side high up in the abdomen and strongly contracted. The child seemed to be the shape of a ball. Suddenly the pains ceased. A diagnosis of rupture of the uterus was made, and a laparotomy at once per-

formed. The uterus showed two large tears, extending through the whole cervix and meeting in front. The organ was removed and vaginal drainage established. The child was asphyxiated and could not be restored. On the third day the patient died of general peritonitis.

Our opinion is that the rupture can only have taken place after the injection of pituglandol, since the occurrence was easily recognized after the second injection. There was a disproportion between the size of the head and the pelvis causing obstruction. The pelvis was only slightly narrowed, but the foetal head was afterward proved to be unusually large, the greatest circumference being  $37\frac{3}{4}$  cm. Child weighed nine pounds.

The pituglandol was given during the expulsive stage of labour, the cervix being fully dilated, the pains weak, and operative procedure not seeming to be indicated. The dose was not unusually large: the contents of one ampule of pituglandol (Hofmann-La Roche), i.e., 1.1 cm., given twice during an hour and a half.

**TREATMENT OF GRANULATING WOUNDS AND ULCERS. *Muenchener Medizinische Wochenschrift*, No. 25.**

Dressings soaked in antiseptic solutions, salves, the use of the cautery and, above all, dressing powder are still much used and held in great esteem by doctor and patient. The advantage of certain of these is not to be lightly questioned, but still the indolence and tedious course of many wounds makes one doubt whether the means of treatment in vogue at present are thoroughly appropriate, whether they favourably influence healing, and indeed whether certain of them do not actually retard its course.

We intend to recommend briefly a procedure that has already upheld our views in a series of cases, and, at least in many instances, makes one consider it an advance in the therapy of granulating wounds. The treatment consists of the employment of a stream of dry air, either hot or cold, playing upon the wound. The application is very simple, since one has merely to direct the stream of air upon the wound until the latter is thoroughly dry. This will be more quickly accomplished by using hot air, but still the principle is not the same as that of hot air treatment, but is a simple drying process. The advantages of the procedure are as follows: The over-abundant granulation tissue which seems to retard healing becomes much restricted, and it is astonishing how, in the course of one sitting of 5-10 minutes duration, the uneven unhealthy look-

ing wound edges assume a smooth and even fresh appearance. At the same time is lessened the secretion that in large amounts stagnates upon wounds and seems to prevent the formation of epithelium. The treatment is non-irritating to the tissues and is also free from such disadvantages as are displayed by many medicaments owing to their colour or odour. Moreover the patient is spared any pain. A good example of the result of this treatment is that of a wound 7 cm. long and 1.5 cm. broad (the result of an incision for cellulitis), which after being unsuccessfully treated for some time with silver nitrate, was fully healed in seven days.

Good results are not to be obtained unless the treatment is conscientiously carried out; that is the drying process must be performed at least once a day.

A word may be said regarding the mechanical irritation of the wound by the dressing lying directly upon it. We have of late attempted to protect the wound by a pad of felt in which a window has been cut, with good results.

Fischer, of Bad Nauheim, in a recent number of the *Muenchener Medizinische Wochenschrift*, draws our attention to the probability of seasickness being one of the many manifestations of vagotony. The symptoms certainly resemble those that appear after the physostigmine test: salivation, malaise, dizziness, headache, nausea and vomiting. The author has put his ideas to the following practical test: Before leaving the dock he examined many passengers of the S.S. *Amerika*, on which he had engaged his passage to New York, and made a note of all who showed a vagotonic tendency. He then noticed that with the first signs of rough weather these passengers were the first to be affected. They were given hypodermic injections of atropine in doses of  $\frac{1}{4}$  to 1 mg., with excellent results. The author writes: "The result of the atropine injection was most astonishing. After a very few hours the sufferers felt much better; salivation and vomiting ceased, the latter in most instances within half an hour. The facial pallor was replaced by a tinge of colour and the pulse became stronger. And yet the sea was becoming all the time rougher. In three to four hours the signs of seasickness had almost entirely disappeared. Even certain passengers who had become so weak that they were removed to the ship's hospital were at once improved after one injection."

The surgical department of the University Clinic at Tübingen,

raises the question whether the practise of iodine disinfection at operations is not detrimental to the health of the operator and his assistants. Analyses of the air of the theatre have shown iodine in various quantities which might be sufficient to impair the health. Blood examinations of those employed in the operating theatre show a leucocytosis, especially marked in those who have been connected with the surgical department for a short time only, and lessening as the system accustoms itself to the iodine-laden atmosphere.

EXPECTANT TREATMENT OF ECLAMPSIA. LICHTENSTEIN, BERLIN.

The method of expectant treatment is as follows: First narcosis with ether or Billroth's mixture, examination, venesection (500 c.c.), followed by Stroganoff's routine of exhibition of morphine and chloral. If the cervix is fully dilated at the beginning of the attack delivery is effected and venesection and the narcotic treatment carried out. Under this treatment delivery is often spontaneous. The infant mortality is much less than that of the active treatment. The maternal mortality has proved to be 6.2 per cent. in eighty cases.

London, Ontario

G. C. HALE

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THERE is great need in Vancouver for a home for incurables or old age patients. As there is no other place in which such patients can receive the necessary attention, they are sent to the General Hospital. The hospital is crowded and can ill afford to give up space which is needed for cases requiring more specific treatment. Improvements are now being made to the hospital at a cost of three hundred and twenty-five thousand dollars.

### Obituary

DR. CALVIN LUTZ, of Gananoque, Ontario, died September 14th, in the sixty-third year of his age. Dr. Lutz practised in Western Ontario for a time, but his health compelled him to give up his profession. He then took up the calling of a druggist and conducted a business in Lansdowne, until a short time before his death. He leaves a widow and one son.

DR. ROBERT LYON SANDERSON, of Sparta, Ontario, died September 23rd, in the eighty-second year of his age. Born at Niagara-on-the-Lake, he was the son of an officer in the British Army; his mother was the daughter of an Empire Loyalist. After taking his medical degree, Dr. Sanderson began to practise in 1857, at St. Thomas, removing thence to Sparta two years later. For many years he was medical officer of health for the township of Yarmouth. He continued his professional work until a few years ago and by his untiring zeal won for himself the name of "Sparta's Grand Old Man." He was a member of the Baptist Church.

DR. GEORGE EDMOND BARIL, of Montreal, died suddenly September 20th. Dr. Baril was born at Battiscan, Que., in 1859; he was educated at Three Rivers Seminary and at the Victoria Medical College. He first practised at St. Pierre, and in 1883 went to Montreal, where he continued his professional work until the time of his death. Dr. Baril was president of the Educational Commission of Hochelaga for twelve years.

DR. F. R. W. WARREN, of Assiniboia, Sask., died suddenly on Friday, September 12th. Dr. Warren was born at Balderson, Ontario, on June 10th, 1877. After receiving his early education at the Perth Collegiate Institute, Dr. Warren went to Queen's University. In 1901 he obtained the degree of B.A. with honours in classics, and in 1906 the degree of M.D., C.M. The following year was spent in postgraduate work at New York. Dr. Warren then practised for some time at Balgonie, Sask., going from there to Assiniboia where he soon built up an extensive practice. Dr. Warren was a Conservative and at the time of his death was president of the Conservative Association of Assiniboia. He was a member of the Anglican Church.

DR. GEORGE ALLAN KENNEDY, of Macleod, Alberta, died from cancer of the tongue in the Winnipeg General Hospital October 8th. Dr. Kennedy was born at Dundas in 1857. He was educated at the Grammar School and Collegiate Institute at St. Catharines, and received the degree of M.B. from the University of Toronto in 1878. He then went to the Northwest Territories and from 1878 to 1887 was surgeon to the Royal Northwest Mounted Police. From 1897 to 1905 he was president of the College of Physicians and Surgeons of the Northwest Territories and for many years was a member of the Council; he was also surgeon for the Canadian Pacific Railway and vice-president of the Canadian Medical Association. In 1908 he was elected a Senator of Alberta University. Dr. Kennedy had a large practice at Macleod and won both respect and affection from those to whom he ministered. He was the first president of the Macleod Club. He leaves a widow, one son—Dr. A. Kennedy, and one daughter.

DR. THOMAS H. HANSON, of Kenora, Ontario, died September 30th, in the sixty-eighth year of his age. Dr. Hanson was born in London, Ontario, and for many years was medical officer for Indian affairs of the Kenora district.

DR. J. L. BETHUNE, of Baddeck, N.S., died suddenly September 27th, in the seventy-first year of his age. Dr. Bethune practised for many years in Cape Breton and was well-known throughout the district. He leaves seven daughters and one son—a physician.

DR. THOMAS MERRILL PRIME, of Knowlton, Quebec, died October 3rd. Dr. Prime was born in Dunham in 1836; he received his medical training at the Castleton Medical College, Vermont, graduating as M.D. in 1856. Later he did some postgraduate work at Bellevue Hospital, New York. In 1874 he went to Knowlton, where he has practised ever since. He was coroner of the district. His activities were not confined to the field of medicine, for until a few years ago he was local editor of the *Knowlton News*. He leaves two sons, both physicians, and two daughters.

DR. IVAN EARL ANNETT, of Windsor, Ontario, died after a short illness at St. Joseph's Hospital, London, Ontario, October 4th, in the twenty-fifth year of his age. Dr. Annett graduated from the Western University in 1910.



DR. L. P. R. LAFLECHE, of Caribou, Maine, died suddenly September 19th. Dr. Lafleche was in the forty-sixth year of his age. Born at Louiseville, Quebec, he was educated at the seminary at Three Rivers, and from there went to Victoria University, where his medical training was obtained. He practised for a short time at Presqu'Île, going thence to Caribou where he has practised for the past twenty years. He leaves a widow, two sons and four daughters.

DR. T. M. ARMSTRONG died at Lloydtown, Ontario, October 5th. Dr. Armstrong was well-known in Allison and Rosemount, where he had practised for over forty years. He also practised in Toronto for a few years.

DR. J. D. STEVENSON, of Toronto, died October 8th, in the eighty-sixth year of his age. Dr. Stevenson was born in Ireland and came to Canada at an early age. He served as surgeon in the North West Rebellion. After practising for several years at Kleinburg, Ontario, he went to Toronto, and continued his professional work there for more than thirty years. He belonged to the Masonic brotherhood.

DR. GIDEON DUNCAN, of Bathurst, New Brunswick, died October 5th. He was in his seventy-second year and was one of Bathurst's oldest citizens, a clever and successful practitioner, greatly esteemed by all who knew him. Dr. Duncan was born at Coldstream, Scotland, July 3rd, 1842. He was educated at the Free Church School at Swinton and at the Andersonian University, Glasgow. In 1864 he came to Canada as principal of the Bathurst Village Superior School. Two years later he took up the study of medicine, first with Dr. W. W. Gordon, and later at McGill University, graduating as C.M., M.D., in 1871. He then commenced to practise at Bathurst. Dr. Duncan was an active member of the New Brunswick Medical Association, over which he presided on more than one occasion. He was once president of the Canadian Medical Association. He was a Presbyterian and a Conservative, keenly interested in education and in the welfare of the people. He leaves one son, Dr. R. Gordon Duncan, and two daughters.

## News

### MARITIME PROVINCES

A GENERAL hospital is to be built at Glace Bay. The building will be of brick and will cost about \$80,000. It will probably be completed next June.

It is propose to enlarge the Victoria Hospital at Fredericton. During September forty-three patients received treatment in the hospital and twenty-one patients were discharged.

THE plans and specifications have been prepared and arrangements made to proceed with the building of a tuberculosis hospital at St. John, New Brunswick.

### ONTARIO

THE following cases of contagious disease are reported by the provincial board of health for the month of September: smallpox, 3; scarlet fever, 98, 8 deaths; diphtheria, 112, 12 deaths; measles, 29, 1 death; whooping cough, 38, 8 deaths; typhoid fever, 338, 27 deaths; tuberculosis, 94, 67 deaths; infantile paralysis, 5, 2 deaths; cerebro-spinal meningitis, 5, 3 deaths.

IN Toronto during September, the contagious diseases reported numbered 302. Given in detail the cases were: diphtheria, 58; scarlet fever, 35; typhoid, 133; measles, 13; smallpox, 0; tuberculosis, 46; chicken-pox, 8; whooping cough, 6; erysipelas, 1; meningitis, 1; poliomyelitis, 1.

DR. A. J. MACAULAY has been appointed medical officer of health of Brockville.

AN isolation hospital is to be built at Newmarket.

AN Army Medical School has been established recently at Ottawa in connexion with the Central Laboratory of Hygiene. Instruction will be given in military sanitation, and militia medical officers will be trained in laboratory work and army sanitation.

Officers holding sanitary appointments, or desirous of qualifying for the same, are eligible to attend the classes.

THE following candidates have been successful in obtaining their M.D., C.M. degree from Queen's University: F. C. Anderson, Kingston; D. C. Irwin, Ottawa; C. K. Robinson, Kingston; G. E. Thwaites, Trinidad, British West Indies.

A GENERAL hospital is to be built at Walkerville. The Walkerville National Council of Women has been working towards this end for some time and as a result of continuous effort thirty thousand dollars has been subscribed. The site has been given by the Messrs. Walker. It is proposed to build a hospital large enough to hold fifty beds, but, in order to do this, a further sum of twenty thousand dollars is needed.

A GOOD many cases of typhoid fever have occurred at Mimico, a small place near Toronto.

A NEW smallpox hospital is to be built at St. Thomas.

AFTER a careful investigation of the charges brought against the Hamilton Hospital, Judge Snider stated that, in his opinion, the buildings and equipment were insufficient for the city's requirements and that the number of nurses was inadequate, the nurses consequently being overworked; furthermore the accommodation provided for the nurses was unsatisfactory. He concurred in the criticisms made by Dr. Bruce Smith, but found that other charges were unfounded and that "no misconduct, mismanagement, or serious neglect prevails at the hospital."

DR. FREDERICK W. MARLOW, F.R.C.S., has been appointed associate professor of gynaecology in the medical faculty of Toronto University.

FIVE hundred and ninety-seven deaths occurred in Toronto during the month of September. This means a death rate of 14.6 per cent., and is 2.1 per cent. more than that of last September. Two hundred and fifty-three of the deaths registered were of infants under one year of age.

THE annual report of the Brantford Hospital for the year

ending September 30th, 1913, states that nine hundred and seven patients received treatment during the year. The expenses for the month amounted to twenty-two thousand five hundred and seventy-seven dollars.

FIVE hundred dollars has been given to the Sir Oliver Mowatt Memorial Hospital at Kingston. The money is intended to be spent on a cottage, large enough to accommodate one person. During the past year fifty-five patients were treated at the hospital.

### QUEBEC

IN order to complete the Notre Dame Hospital at Montreal, a sum amounting to \$750,000 is required. Bonds for this amount will probably be issued within the next few months; the issue will be for twenty years at 5 per cent.

THE cases of infectious disease reported in Montreal during the week ending September 27th, were: diphtheria, 22; scarlet fever, 24; typhoid, 13; measles, 5; chicken-pox, 1; tuberculosis, 22; whooping cough, 3.

A SLIGHT epidemic of infantile paralysis broke out in Montreal about the end of August. Some twenty cases have been reported and four deaths have occurred.

A SPECIAL course in hygiene is to be given at Laval University, Quebec. The lectures will commence in January. Information concerning the course may be obtained upon communicating with the secretary, Dr. A. Vallée, 22 rue Ste. Anne, Quebec.

DR. Z. RHEAUME has been appointed to the Chair of Experimental Surgery which has just been created at Laval University, Montreal.

THE following are the returns of the Alexandra Hospital, Montreal, for the month of September: diphtheria, admitted 25, discharged 20, died 3; scarlatina, admitted 59, discharged 53, died 4; varicella, admitted 3, discharged 3; total number admitted 87, discharged 76, died 7.

A SCHOOL for the Blind was officially opened at Montreal on Monday, October 13th, by Sir Lomer Gouin. The school is situated

on Sherbrooke Street in the western part of the city and has been instituted for the training of the blind among the English-speaking population of Montreal. The cost of the building has been forty thousand dollars, which amount has been raised by private subscription. On the occasion of the opening, a short address was delivered by Premier Gouin in which he intimated that an appeal for financial aid, if made to the provincial government, would meet with consideration. At present there are about twenty pupils in the school.

MORE than twenty thousand persons were treated without charge at the Montreal dispensary during the past year. Dr. Alfred Bramley Moore, Dr. Howard Gillis, Dr. J. H. Laidley, and Dr. S. H. Martin have been appointed to the staff of the dispensary.

THE second regular meeting of the Montreal Medico-Chirurgical Society for the present session was held on Friday, October 17th.

AN outbreak of smallpox has occurred at Sainte Marie Sato-nière, a small parish in Montcalm county. It appears that nothing was done by the local authorities to prevent the spread of the disease. The matter is now in the hands of Dr. Corsin of the provincial board of health.

AN outbreak of scarlet fever is reported from Masson. Here again no attempt at quarantine was made by the local authorities.

THE plans are now ready for the new building of the Montreal Foundling and Sick Baby hospital. A sum amounting to forty-two thousand dollars was subscribed last spring and has been doubled by Lieutenant-Colonel J. H. Burland, so that eighty-five thousand dollars are now available for building purposes.

#### MANITOBA

A BY-LAW for \$275,000 in favour of the Winnipeg General Hospital was voted upon October 1st, and was defeated. As less than three thousand persons voted out of a possible eighteen thousand, however, the result cannot be considered as representative of public opinion; consequently, it has been decided to submit the by-law a second time in December, when the general elections occur.

THE medical staff of the Winnipeg General Hospital gave a dinner to Dr. Blanchard and Dr. Gray on the occasion of their retirement from the attending staff of the institution. Both doctors have served the Hospital for nearly a quarter of a century, and at the time of resigning the duties of active attendance on the wards Dr. Blanchard was chief of staff and Dr. Gray senior gynaecological surgeon. In 1908-9, Dr. Blanchard was president of the Canadian Medical Association; and Dr. Gray has for many years been registrar of the College of Physicians and Surgeons. The dinner was held in the dining room of the vice-regal suite of the Royal Alexandra Hotel. Dr. Gordon Bell was chairman, and in the course of the evening Dr. J. R. Jones, on behalf of the staff, presented a silver tea service to Dr. Gray; and Dr. J. Wilfred Good presented a watch suitably engraved to Dr. Blanchard. Many references were made to the early days of the hospital and to medical practice in Winnipeg in the early eighties.

#### SASKATCHEWAN

THE medical council of the Saskatchewan College of Physicians and Surgeons proposes to establish a library at Saskatoon. For the present a temporary building will be used, but later a library will be erected near the University.

A PROVISIONAL school of instruction for the army medical service was opened in Regina, October 6th.

THE following are the infectious and contagious diseases reported in the province from September 1st to September 27th: typhoid fever, 96 cases; diphtheria, 8 cases; scarlet fever, 15 cases; measles, 6 cases; smallpox, 6 cases; mumps, 1 case; infantile paralysis, 1 case; whooping cough, 17 cases; tuberculosis, 2 cases; trachoma, 2 cases.

#### ALBERTA

THE new St. Joseph's Hospital at Medicine Hat has been commenced. The site was given by Mr. E. D. Bennett, a resident of the city. The cost of the building will be about seventy-five thousand dollars.

SEVERAL cases of typhoid fever which have occurred in Medicine Hat are believed to have been caused by drinking water taken



from wells. As a result, an order has been given that all wells within the city limits be closed up.

DR. ORR, medical officer of health at Medicine Hat, has been requested by the board of health to secure information as to cost and so forth of the proposed isolation hospital.

A RESOLUTION was passed October 9th, by the Alberta Legislature, authorizing the government to take steps to prevent the spread of tuberculosis in cattle. Disappointment has been felt that, up to the present, nothing definite has been done in this direction, save to supply tuberculin to such farmers as requested it.

#### BRITISH COLUMBIA

THE new Royal Columbian Hospital at New Westminster is to be completed. It was necessary to suspend the work of construction for a short time owing to lack of funds. However, the Bank of Montreal has advanced \$70,000 on unsold bonds which were issued by the hospital last year. When the building is finished, subscriptions will still be needed in order to furnish it.

A COMMITTEE has been appointed to take up the question of hospital extension at Vancouver. If found possible, it is proposed to enlarge the General Hospital, build a medical building and maternity hospital, and extend the nurses' home.

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#### CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA

THE fourth annual session of the Clinical Congress of Surgeons of North America will be held in Chicago, from the 10th to the 15th of this month. Everything possible has been done to make the meeting as successful as were the Philadelphia and New York meetings in 1911 and 1912, and a large attendance is confidently expected. As its name implies, the purpose of the Congress is to give to its members clinical demonstrations rather than the opportunity of hearing papers read and discussed.

An extensive and interesting programme has been arranged;

it includes every branch of surgery—gynæcology, obstetrics, genito-urinary surgery, orthopædics, surgery of the eye, nose, ear, throat, and mouth. Special demonstrations will be given also in radiology, experimental surgery, surgical pathology, and so forth.

The clinics will begin early on Monday morning, the 10th, and will continue until Saturday afternoon. The registration fee is \$5.00. Eight evening sessions will be held, when scientific papers will be read and discussed by distinguished American and European surgeons. The presidential address will be given on Monday evening by Dr. Edward Martin; and the president-elect, Dr. George Emerson Brewer, of New York, will give the annual address. Dr. Brewer has chosen for his subject, "A new method of pyloric closure in gastro-enterostomy." On Thursday evening an extraordinary session will be devoted to the discussion of cancer; a feature which will then receive particular attention will be the education of the public concerning the early recognition of the disease and the importance of early treatment.

Special arrangements have been made with the railway companies for the benefit of those who attend the Congress. Canadian surgeons who purpose being present should apply for information concerning rates to the local representatives of the New York Central Lines, the Pennsylvania Lines, or the Grand Trunk Railway.

The general secretary of the Congress is Dr. Franklin H. Martin, 31 North State Street, Chicago. Dr. Allen B. Kanavel is the general treasurer, and Dr. A. D. Ballou the general manager. The vice-president-elect is Dr. W. W. Chipman, of Montreal.

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## Canadian Literature

### ORIGINAL CONTRIBUTIONS

*The Canadian Journal of Medicine and Surgery*, October, 1913:

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| Typhoid Fever, Its Management, Personal Views . . . . .  | W. R. Irvine. |
| The Problem of Rural Depopulation—Its Meaning in Relation to Health, and its Possible Solution . . . . . | P. H. Bryce.  |

*The Canadian Practitioner and Review*, October, 1913:

- The Scope of Sanitary Work in the Home . . . C. A. Hodgetts.  
 Venereal Disease as a Public Health  
 Problem . . . . . F. A. Clarkson.  
 A Method of Tonsillectomy . . . P. B. Macfarlane.  
 A case of Malaria treated with Neosal-  
 varsan . . . . . C. Sheard.

*The Western Medical News*, September, 1913:

- The Greatest Medical Gathering the  
 World has ever seen . . . . . R. B. Wells.  
 Forceps Deliveries . . . . . J. W. Turnbull.

*Le Bulletin Médical*, Québec, October, 1913:

- Ce que doit être l'organisation municipale  
 pour la lutte contre la tuberculose . . . A. Savard.  
 Le logement de l'ouvrier . . . . . E. Couillard.

*The Public Health Journal*, October, 1913:

- Presidential Address, Canadian Public Health  
 Association. . . . . J. W. S. McCullough.  
 The Harbour of Indifference. . . . . G. D. Porter.  
 Sanitary Surveys of Rivers . . . . . J. E. Malek.  
 Charities and Corrections. . . . . J. E. Starr.  
 The Relation of the Social Survey to Public  
 Health Authorities. . . . . F. Schneider.  
 Leaves from an Inspector's Notebook. . . H. D. Mathias.  
 The Land of Spotless Towns. . . . . F. Withrow.

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## Medical Societies

### OTTAWA MEDICO-CHIRURGICAL SOCIETY

THE opening meeting of this society was held October 3rd, when the president, Dr. J. R. O'Brien, delivered an address on "Somatic Death." He presented the subject in an excellent manner, dwelling upon the research and experimental work of the Carnegie Laboratory, New York.

### LAMBTON COUNTY MEDICAL ASSOCIATION

THE last regular meeting of the Lambton County Medical Association was held in the Carnegie Library at Forest on October 15th, 1913. Dr. H. A. McCallum, of London, was present and gave a very interesting address on "Visceroptosis." The report of the new medical tariff was read; this will come up for discussion at the next meeting in Sarnia in February.

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### VANCOUVER MEDICAL ASSOCIATION

THE Vancouver Medical Association begins its series of meetings on October 6th.

The following officers for the year 1913-14 have been elected: president, Dr. J. W. McIntosh; vice-president, Dr. W. D. Keith; secretary-treasurer, Dr. J. H. MacDermot; president of clinical section, Dr. A. B. Schinbein; secretary clinical section, Dr. A. Locke Robertson.

The meetings of the society will be three in number each month, instead of two, as formerly. The general meeting will take up matters of general interest to the profession and the chief speaker at each meeting will be a leading man in the subject chosen. The regular meeting will consist of papers read by members, with discussion. The clinical meeting, held at a hospital, will be the third meeting of the month.

The programme has been arranged in advance. This was done for the first time last year and proved a great success.

At the general meeting, which will take place on the tenth instant, Dr. Peter H. Bryce, of Ottawa, will give an address on "The true physician as sociologist." The regular meeting will be held on the seventeenth of the month, when a paper will be read by Dr. J. M. Pearson, on "High blood pressure, its cause and control, with special reference to nephritis." Papers will also be read by Dr. Colin Graham, and Dr. J. F. Fuller.